Laverendrye Provincial Park

Background Information and Planning Options (Summary)

Ontario

Ministry of Natural Resources

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Minister

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Deputy Minister

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Dear Planning Participant:

Thank you for taking the time to become involved in the planning of LaVerendrye Provincial Park.

This document provides a summary of resource information which we have used in the development of the three optional plans presented. It also includes an account of the various issues and concerns raised to date through meetings, letters and conversations.

I sincerely hope you take this opportunity to let me know of your views on the future development and management of LaVerendrye Provincial Park. In order to keep our planning process on schedule, I would appreciate hearing from you before October 31, 1985.

Thank you again for your involvement.

H.D. Howell
A/District Manager
Thunder Bay District

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1. INTRODUCTION

LaVerendrye Candidate Provincial Park has been recommended[1] for Provincial Park status in recognition of its recreational and tourism potential and the significant historical, cultural and natural resources which are associated with the area.

Located on the international boundary between Canada and the U.S.A. and adjacent to the Boundary Waters Canoe Area (to the south), LaVerendrye extends between Quetico Provincial Park (to the west), and Middle Falls Provincial Park (to the east). While the proposed park area lies in the midst of the premiere wilderness canoeing country of North America, it is not intended that the park, based on the Pigeon River Waterway, become an extension of these wilderness areas. Rather, it is intended to provide a Provincial Park setting which will serve as a valuable link and interface between the opportunities offered on Crown land and those areas managed for wilderness recreation.

Planning for the management of LaVerendrye is a task which presents a number of challenges. Historically, it has to be recognized as a major waterway that carried early explorers to the west and later, fur traders to the east. Today the area is heavily used for recreational purposes by hunters, fishermen, canoeists, cottagers and for business by local tourist operators. These users have differing demands on the resources of the area and seek differing and sometimes conflicting management policies in order to persue their activities to their greatest satisfaction. In addition, LaVerendrye's location along the international boundary between Canada and the United States, requires the development of management policies with an appreciation of implications to both country's adjacent land uses.

1.1 Park Objectives

Waterway parks are intended to provide a setting for primarily water based recreation and tourism opportunities while protecting and maintaining identified values within the park area. The broad objectives established for developing the boundary and management options in this document are identified below:

(1) To provide continuity in the management of the Pigeon River corridor which forms a link between Quetico Provincial Park in the west and Middle Falls Provincial Park on Lake Superior.
(2) To protect and interpret one of the most important early exploration and subsequent fur trade routes in Canada's history.
(3) To safeguard, through appropriate zoning and management policies, major recreational, cultural and natural resources.
(4) To provide residents and visitors to Ontario a greater opportunity to access and utlize the tourism and recreational resources of the area.
(5) To have an appreciation and regard for adjacent landowners and established uses of the area.
(6) To limit planned development and management to existing Crown lands adjacent to the Pigeon River.
(7) To increase the level of co-operation between adjacent land owners and present resource users for the management of the park area.
(8) To provide ongoing research for inventory of resources and the regulations of their use in selected areas for continued local and regional benefits.

(9) Provide an interface of recreation opportunities, to blend wilderness recreation with Crown land recreation.
(10) Promote understanding of and co-operation between USA-Minnesota and Canada-Ontario waterway management and resource controls.

1.2 Park Classification

The LaVerendrye Candidate Provincial Park is to be classified as a waterway park. The Ontario Provincial Parks Policy, approved in 1978, established the waterway class of park as one of six classes in the Provincial Parks system. Ontario Provincial Parks Policy gives this definition for waterway parks:

> Waterway Parks incorporate outstanding recreational water routes with representative natural features and historical resources to provide high quality recreational and educational experiences.

1.3 Purpose of Document

The purpose of this document is to provide a summary of information which is pertinent to the planning project. This information covers resources of the area, present land uses and activities, identified problems or issues to be addressed by the plan and concepts for future boundary regulation and management. A more detailed source of information is available for public review at the Ministry of Natural Resources District Office in Thunder Bay.

It is important to note that while every effort has been made to ensure accuracy in the collection and evaluation of information, some corrections may be in order. In addition, the options presented need not be viewed as being the only feasible means of meeting the overall objectives for the park. Other options or combinations of those presented are possible. Through this public consultation process an opportunity exists to point out required corrections and to suggest the most appropriate mangement for the park area.

There are a number of ways you can seek clarification of this information or express your views.

- submit a completed comment sheet
- provide comments to M.N.R. staff at the scheduled open house
- forward a letter to the District Manager at the address below
- phone or call at our office to discuss your views

District Manager
Ministry of Natural Resources
435 South James Street
P.O.. Box 5000
Thunder Bay, Ontario
P7C 5G6

Phone: 475-1531

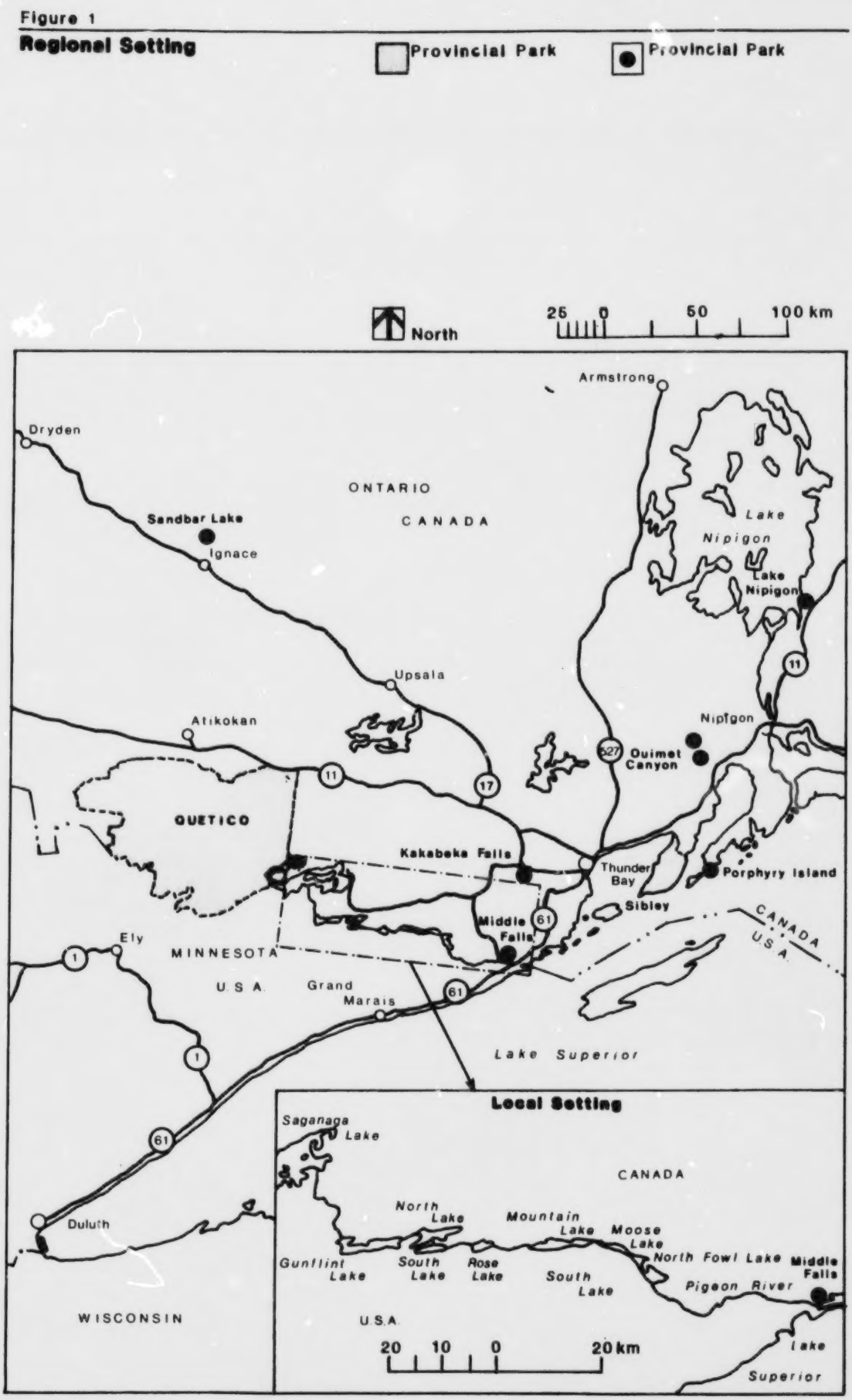
2. REGIONAL CONTEXT

- LaVerendrye Candidate Park is located in Northwestern Ontario, adjacent to the International Boundary between Canada and the United States.

- The candidate park includes the lakes and rivers of the International Boundary waters from the eastern boundary of Quetico Provincial Park on Saganaga Lake in the west to Middle Falls Provincial Park on the Pigeon River in the east.

Figure 1

Regional Setting



3. PLANNING AREA AND PRESENT RESOURCE MANAGEMENT

- An area of study is identified along the boundary waters, approximately 2 kilometres back from the shoreline. This study area incorporates the LaVerendrye Candidate Park in its entirety.

- In 1962, several locations along the waterway were established as park reserves. In 1970 the waterway was the focus of the planning document Management Guidelines for the International Boundary Waters (M.N.R. 1970). This document recommended a number of management policies for the boundary waters which were enacted shortly thereafter, regarding land disposition, recreation, fish, wildlife, timber and mining activities.

- In 1973, a 122 m (400 ft.) park reserve was established from Saganaga Lake to Pigeon River and the reserve was withdrawn from staking. In addition, a one mile wide reserve was established in Ontario from the shoreline inland, essentially between Quetico and Middle Falls Provincial Parks, reserving the surface rights to the Crown.

- In 1983, as a result of the area's candidate park status, a 200 m (656 ft.) shoreline area was withdrawn from staking between Quetico and Middle Falls Provincial Parks with potential access nodes extending beyond this standard boundary.

- The physical and cultural resources of the study area have been extensively surveyed by M.N.R. specialists, in 1975 and 1984. It is proposed that features of significance be protected within the candidate park.

- Generally, a 200 m (656 ft.) wide shoreline reserve is proposed along the entire length of the candidate park; also included are all waters on the Ontario side extending to the International Boundary. Exceptions for this include the Pigeon River Clay Plain Nature Reserve zone, other smaller zones with special resource values, several access zones or development zones, and skyline reserves.

- In some areas, consideration will be given to reducing the 200 m shoreline to 100 m where park values are known not to exist beyond the point and/or would not be jeopardized.

Saganaga
Lake
Red Sucker
Bay
Granite River
Cross
Bay
Maraboeuf
Lake
Devils Elbow
Gneiss
Lake
Granite Bay
Granite Lake
Clove L.
Pine River
Magnetic
Lake
CANADA
U.S.A.
Gunflint Lake
Little
North L.
Little
Gunflint L.
North Lake
Sec Bay
Frances
Bay
South Lake
Rat
Lake

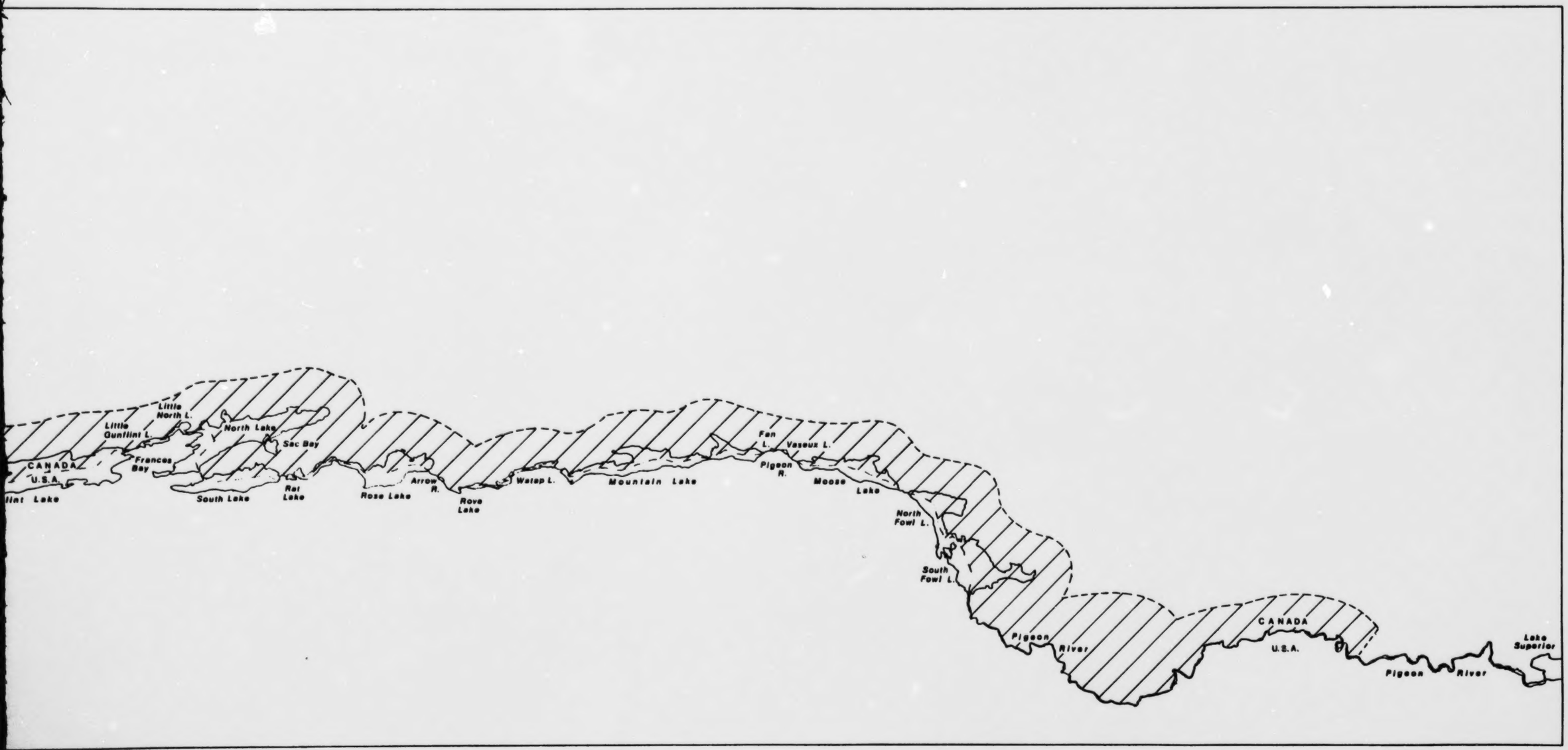
Figure 2

LaVerendrye Study Area

2 1 0 2 4 6 km

North

Study Area



3.1 Forest Management

- LaVerendrye Candidate Park is located within the Fort William Crown Management Unit.
- Present commercial cutting is not allowed within 200 m (656 ft.) of the shoreline along the length of the candidate park.
- Some land within the study area is currently being harvested for timber and prospective cutting areas adjacent to the candidate park also exist.
- Kakabeka Timber is currently operating in the North Fowl Lake area.
- Buchanan Forest Products is currently operating in the Saganaga Lake/Trout Bay area.
- Three private operators are currently harvesting timber north of Pigeon River and east of South Fowl Lake.

3.2 Fire Control

- Since records have been kept, forest fires have swept the area several times since the late 1800's. Forest fires have not affected the study area in recent times.

- The Ministry of Natural Resources and the US Forest Service share a Memo of Understanding regarding fire fighting procedures on the boundary waters.

- A "Common Zone", approximately 3 kilometres on either side of the International Boundary, is under joint observation by Ontario and Minnesota.

- Two volunteer fire wardens in the Saganaga Lake area are equipped with a pumping unit and contact the Regional Fire Centre in Thunder Bay in the event of a fire.

- Under normal circumstances, action on a fire would be taken by the Thunder Bay or Shebandowan fire control units.

3.3 Mining and Mineral Potential

- The boundary waters were evaluated for mineral potential in 1971; the area rated a low to medium potential for uranium, iron, gold, silver, and ornamental stone.

- The north shore of Saganga Lake is rated high for mineral potential.

- A 122 m (400 ft.) reserve from the south end of Saganaga Lake to the Cascades on the Pigeon River was withdrawn from staking under the Mining Act (Sec. 43, ch. 274, Order #W.22/73) in 1973.

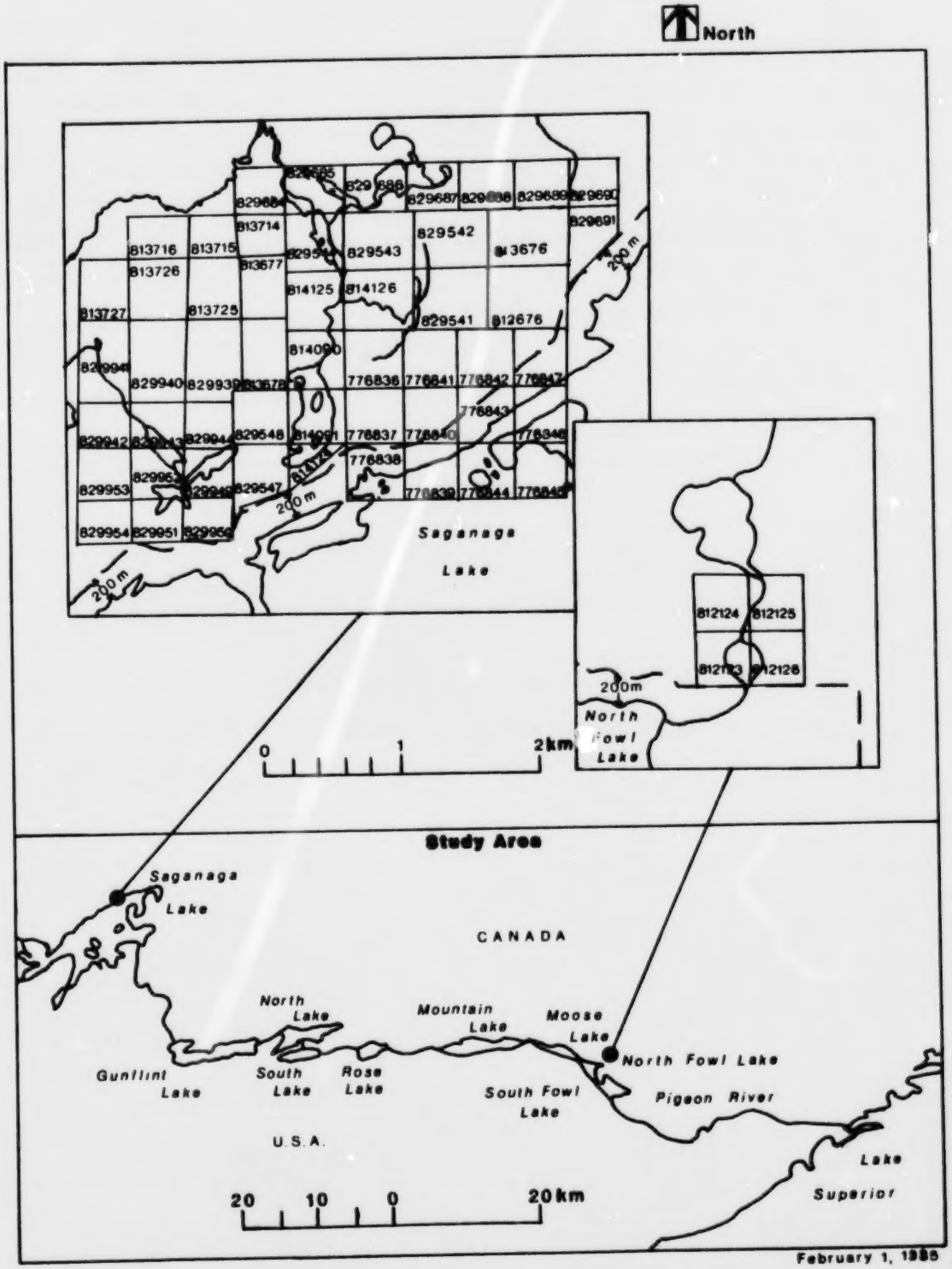
- In 1983 the present candidate park area was withdrawn from staking for 200 m (656 ft.) along the length of the waterway from the eastern boundary of Quetico Provincial Park to Middle Falls Provincial Park on the Pigeon River. Also withdrawn are several access points and the Pigeon River Clay Plain Nature Reserve Zone proposal.

- There are two active claim areas within the study area (as of early 1985); along the north shore of Saganaga Lake, and near the northeast shore of north Fowl Lake.

- These above claims now within the 200 m (656ft.) candidate park boundary proposal were staked when the 1973 mining reserve was rescinded and before the 1983 mining reserve was established.

Figure 3

Mining Claims



3.4 Fish and Wildlife

- The majority of the lakes of the LaVerendrye waterway have been surveyed by both the Ontario MNR and by the Minnesota DNR with regards to location, depth, vegetation, fish species and access.

- The Fisheries Management Plan (MNR, 1983) has classified some of the lakes of LaVerendrye as good lake trout lakes on which restricted development will be permitted as to maintain a quality fishing experience while permitting other uses of land and water. These lakes are generally described as clear, cool, oxygenated, oligotrophic lakes.

- Over the past fifty years, walleye and smallmouth bass have been successfully introduced to the originally lacking headwaters of the Great Lakes - St. Lawrence watershed and some lakes of the LaVerendrye.

- Some of the lakes along the boundary waters are stocked by the Minnesota Department of Natural Resources.

- The Minnesota DNR at present allows commercial gill netting on Saganaga Lake.

- Fishing seasons along the boundary waters are summarized in Table 1.

- The LaVerendrye study area lies within the MNR's Wildlife Management Unit 13, indicating that the area is relatively homogenous with respect to primary productivity and land capability to produce wildlife.

- Trapping is an important activity in the candidate park.

- There are parts of twelve traplines within the LaVerendrye Candidate Park area, which are operated by thirteen trappers (one trapline has two trappers).

- Five trappers' cabins are located within the candidate park.

- The Thunder Bay Land Use Guidelines recommend that trapping continue as an activity within the candidate park.

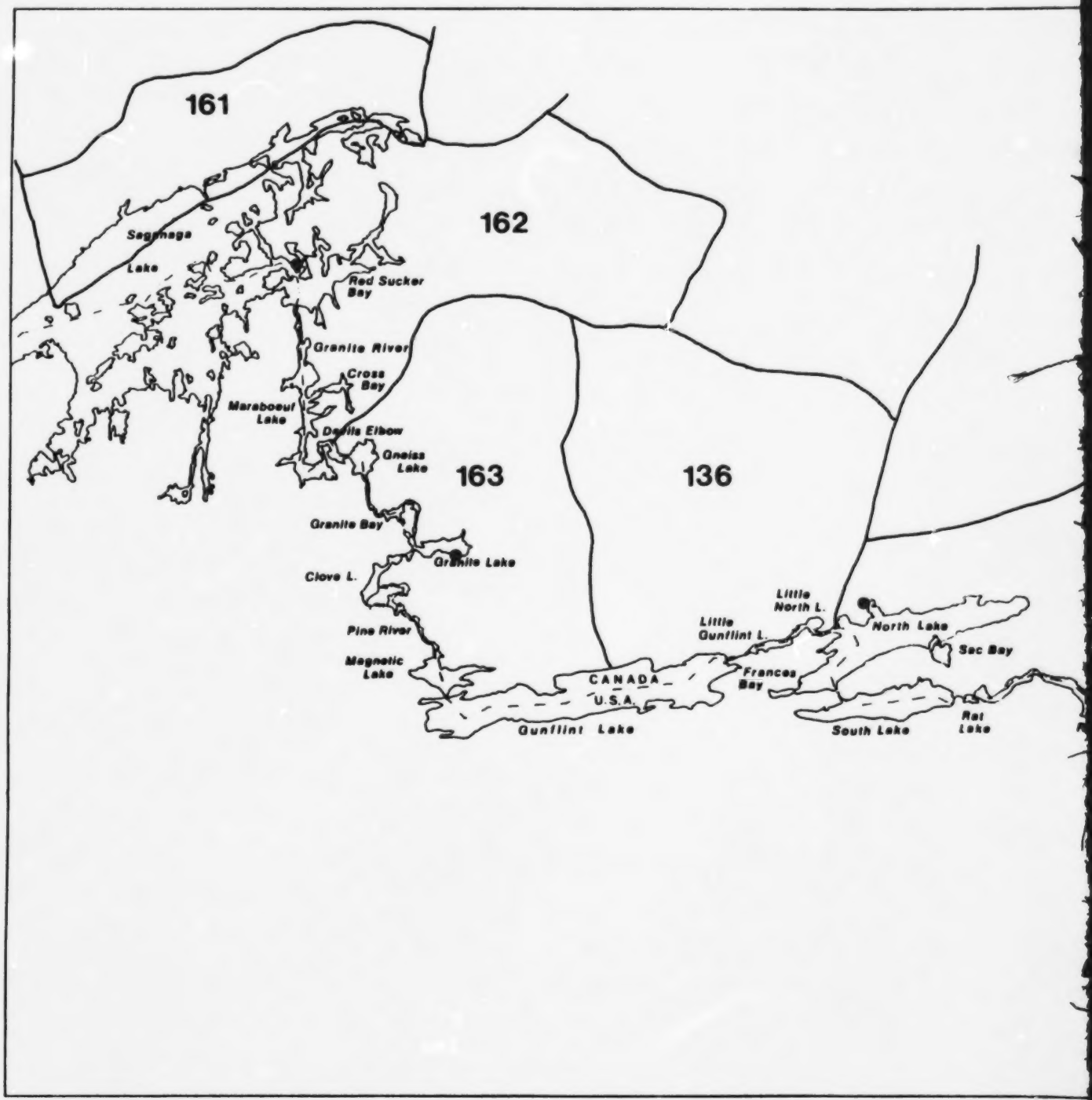

161
162
163
136
Sagmaga
Lake
Red Sucker
Bay
Granite River
Cross
Bay
Marabocuf
Lake
Devils Elbow
Gneiss
Lake
Granite Bay
Granite Lake
Clove L.
Pine River
Magnetic
Lake
CANADA
U.S.A.
Gunflint Lake
Little
North L.
Little
Gunflint L.
North Lake
Sec Bay
Frances
Bay
South Lake
Rat
Lake

Figure 4

Registered Traplines and Cabins

2 1 0 2 4 6 km

North

Trapline Area Boundaries

Cabins

136

176

121

94

93

92

74

4

76

164

Little North L.

Little Gunflint L.

North Lake

Sec Bay

France Bay

CANADA

U.S.A.

Lake

South Lake

Rat Lake

Rose Lake

Arrow R.

Rove Lake

Welsp L.

Mountain Lake

Fan L.

Vaseux L.

Pigeon R.

Moose Lake

North Fowl L.

South Fowl L.

Pigeon River

CANADA

U.S.A.

Pigeon River

Lake Superior

TABLE 1: 1984-85 FISHING SEASONS ON THE BOUNDARY WATERS

FISH SPECIES	ONTARIO SEASON	MINNESOTA SEASON
YELLOW PICKEREL (Walleye) and SAUGER	May 19 - April 14	May 12 - April 14
NORTHERN PIKE	All Year	May 12 - April 14
BASS (Largemouth and Smallmouth)	All Year	All Year
LAKE TROUT AND SPLAKE	Feb. 15/84 - March 15/84	Boundary Waters Canoe Area: Dec. 31/83 - March 31/84; Dec. 29/84 - Mar. 31/85 Outside or Partly Outside of BWCA: Jan. 14/84 - Mar. 15/84; Jan. 12/85 - Mar. 15/85
WHITEFISH	All Year	All Year

3.5 Land Use Tenure

- Within 200 m of the shoreline there are 89 parcels of private land totalling approximately 850 ha (2100 ac.).
- Cottaging constitutes a major land use in the study area.
- The largest number of cottages occur on Saganaga Lake, Gunflint Lake and North Lake; most are owned by U.S. residents.
- Some land is also privately owned on North Fowl and South Fowl Lakes and adjacent to the Pigeon River.
- There are lodges and resorts on both sides of the International Boundary which host a large number of visitors.
- When final boundaries are established, they will be drawn so as to exclude all private lands.

Figure 5

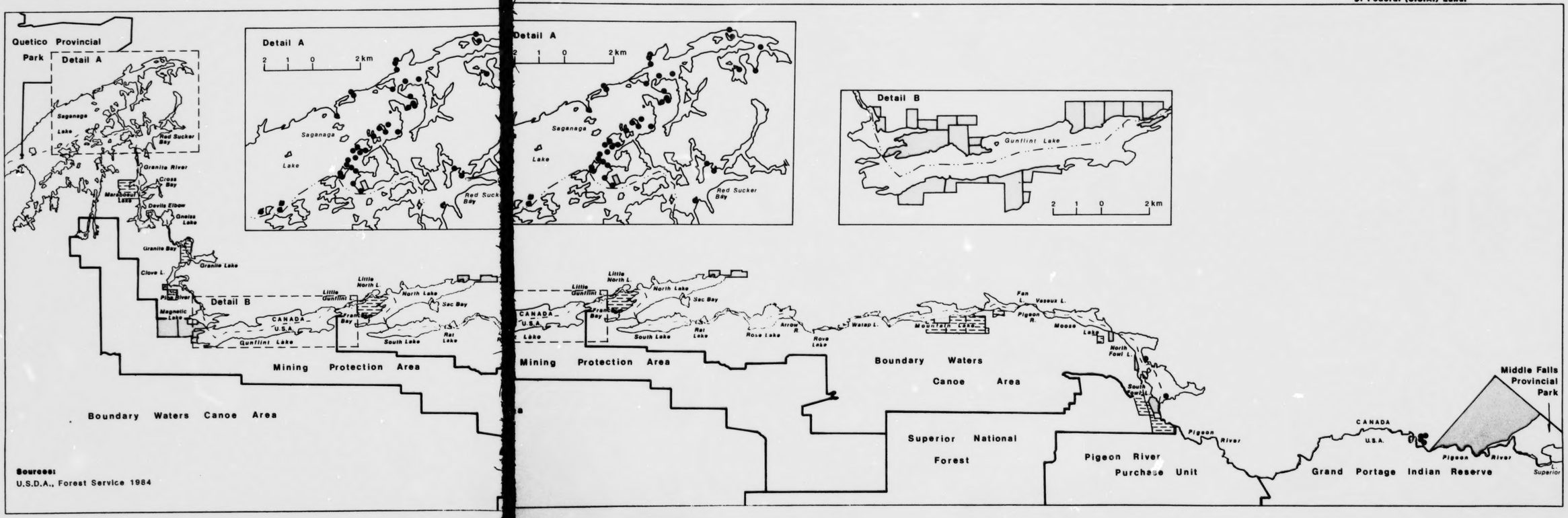
Land Tenure Adjacent to Boundary Waters

2 1 0 2 4 6 km

North

- Patented Land (under 3 hectares)
- Patented Land (3 hectares and over)
- Public Land (State Owned)
- Public Land (County Owned)

All unmarked land is Crown (Ontario) or Federal (U.S.A.) Land.



Sources:
U.S.D.A., Forest Service 1984

4. MARKET ANALYSIS

Market Area

- Thunder Bay is the nearest city, with a population of 120,000.
- The settlements of Kakabeka Falls, Stanley, Hymers, Nolalu, South Gillies and Suomi are located between Thunder Bay and the LaVerendrye candidate park.
- Within a 300 km (186 mi.) radius of the candidate park, are the Canadian towns of Atikokan, Fort Frances, Kenora, Dryden and Nipigon, all substantially smaller than Thunder Bay.
- Within an 800 km (500 mi.) radius are the larger Canadian cities of Winnipeg, Sudbury and Sault Ste. Marie.
- To the south of LaVerendrye candidate park, the five upper Midwestern states of Minnesota, Wisconsin, Iowa, Illinois and Michigan play a significant role in Thunder Bay's Regional tourism industry constituting up to 60% of all visitors to the area. These states have an estimated population of 22 million people.
- The majority of American visitors to Thunder Bay are from Minnesota, which has a population of about 4 million people; most spend an entire holiday in Canada and come for the outdoor recreation opportunities.

Present Land Use Patterns

- The LaVerendrye waterway offers many outstanding opportunities for outdoor recreation.
- The study area has long been popular for cottaging, boating, hunting, fishing and canoeing; some of these activities are restricted in Minnesota's Boundary Waters Canoe Area.
- The lodges on both the Canadian and American side host a large number of visitors.
- A high percentage of boundary waters users are U.S. residents; this is due to better access on the American side of the waterway and due to the popularity of Minnesota's Boundary Waters Canoe Area.
- The Boundary Waters Canoe Area (B.W.C.A.) extends for nearly 240 km (150 mi.) along the Minnesota-Ontario boundary and covers an area in excess of 404,000 ha (1 million ac.). The area contains about 2400 km (150 mi.) of water routes.
- Visitation to the Boundary Waters Canoe Area has increased from fewer than 50,000 people in 1958 to well over one million visitors in 1983.

- Information indicating use of the LaVerendrye candidate park has not been collected to date, but user data in the B.W.C.A. helps to suggest use patterns and trends on the Canadian side. Generally, this data suggests that use of the Canadian boundary waters is also increasing dramatically.

- The LaVerendrye area is popular with canoeists who are retracing the Voyageur canoe route. There are few opportunities for whitewater as water flow is low and streams shallow; lake travel predominates.

- Secondary canoe routes originate within the LaVerendrye and lead to Quetico Provincial Park, Northern Light Lake, Arrow Lake Provincial Park and the Boundary Waters Canoe Area.

- The locations of all known campsites and portages are documented and available for public use at the Thunder Bay District Office of O.M.N.R.

- Backpacking, hiking and cross-country skiing are popular on the American side of the boundary waters and could be potential activities for the proposed park.

- U.S. data suggests that winter fishing and snowmobiling are common activities in the area.

- Activities recommended to continue in LaVerendrye by the Thunder Bay District Land Use Guidelines are:
  - . snowmobile/power boat use
  - . bait fishing
  - . hunting
  - . sport fishing
  - . tourism
  - . trapping
  - . wildlife viewing

Figure 6

Market Area

4.1 Access

a. From Canada

- Access to the candidate park on the Canadian side is limited to a few rough bush roads. On the American side, access to the western end of the waterway is excellent via the well-travelled Gunflint Trail.

- There are presently two access points, one at North Fowl Lake and one at Mountain Lake, as well as indirect means of access via other lakes and river systems.

- There are four potential access points at Saganaga Lake, Gunflint Lake, the Cascades on the Pigeon River, and North Lake - locations where existing timber roads enter the study area.

- The objective in creating further points of access is to enable park users to enter or exit at evenly distributed points along the waterway.

- Better access would provide Canadians and visitors to Canada with greater recreational opportunities on Ontario's boundary waters.

b. From the U.S.A.

- Access on the American side of the boundary waters is well-developed and heavily used.

- The most extensively used of the entry points which provide access to the LaVerendrye waterway is the Saganaga Lake entry point.

- Gunflint Lake is second in popularity among the entry points to the Boundary Waters Canoe Area adjacent to LaVerendrye.

- Many who enter at Saganaga Lake, Gunflint Lake or Seagull Lake are travelling to Quetico Provincial Park.

- Less than half of those who enter the boundary waters via Saganaga Lake or Gunflint Lake exit via the same access.

- Other entry points to the Boundary Waters Canoe Area provide indirect access into the LaVerendrye waterway (such as John Lake and Seagull Lake).

- The majority of people who reported to the Canadian Customs Station at Saganaga Lake in 1983 used motorboats as a means of transportation.

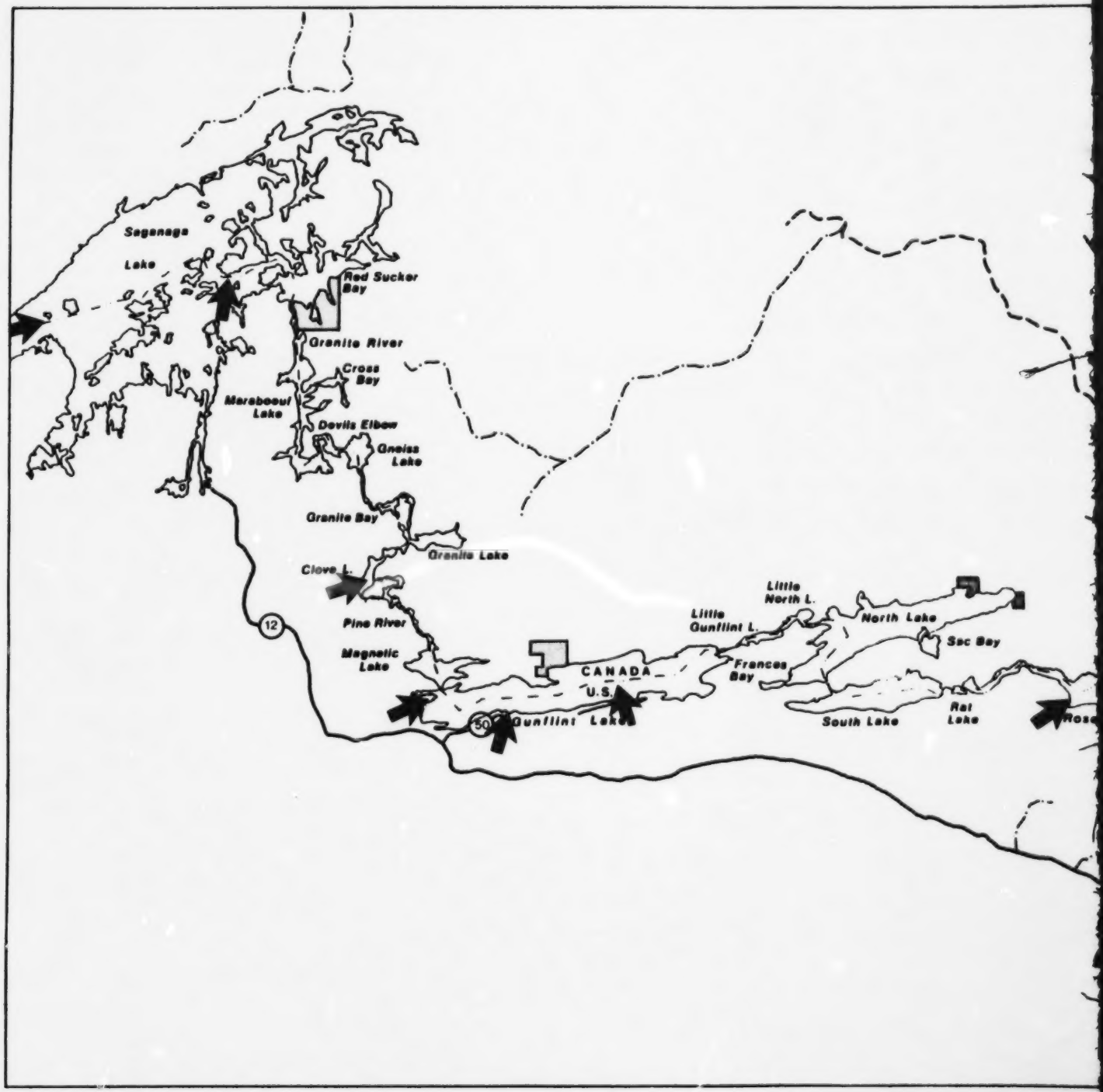

Saganaga
Lake
Red Sucker
Bay
Granite River
Cross
Bay
Maraboeuf
Lake
Devils Elbow
Gneiss
Lake
Granite Bay
Granite Lake
Clove L.
Pine River
Magnetic
Lake
12
50
CANADA
U.S.
Gunflint Lake
Little
North L.
Little
Gunflint L.
North Lake
Sec Bay
Frances
Bay
South Lake
Rat
Lake

Figure 7

Access: Existing and Potential

2 1 0 2 4 6 km

North

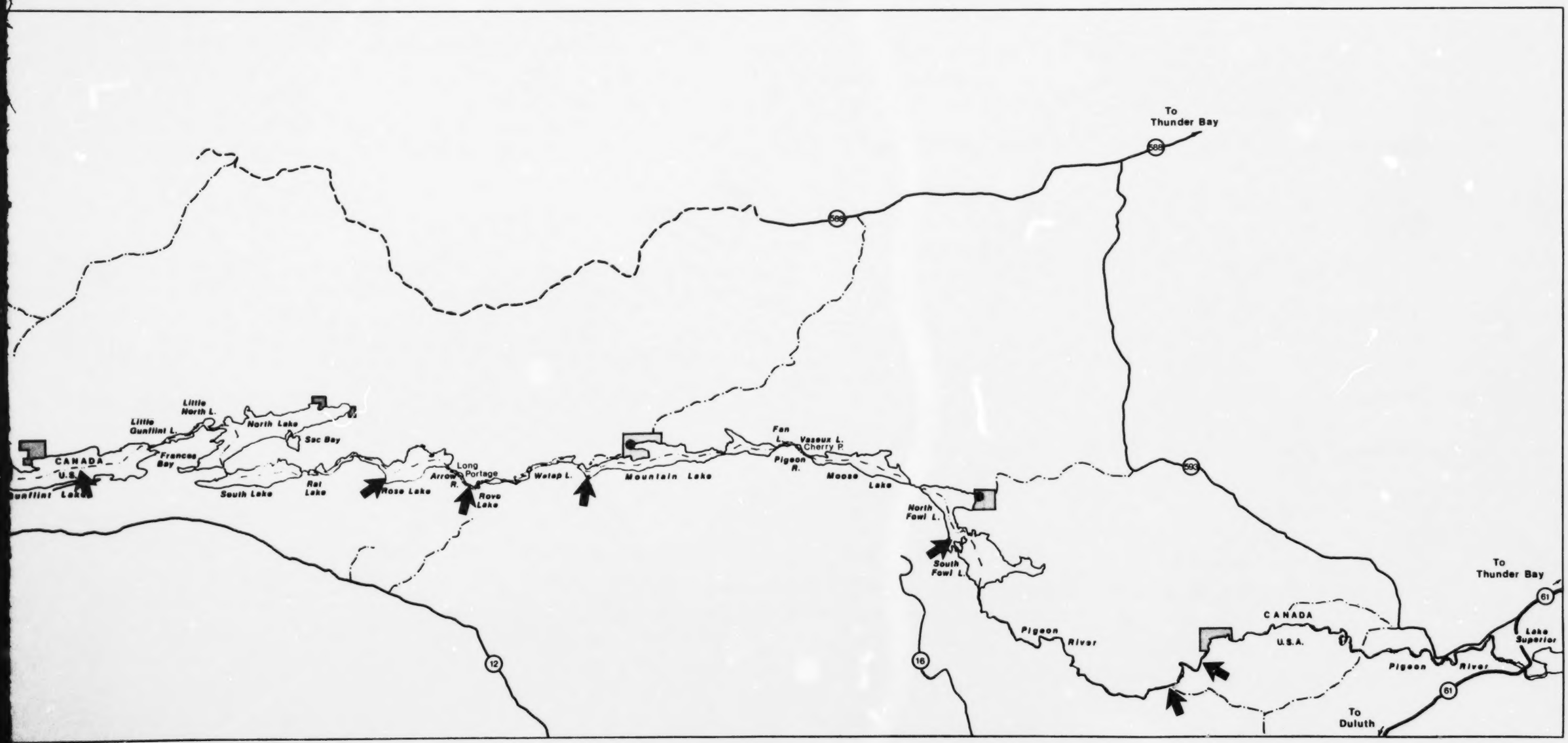
Highways

Gravel Roads

Existing Access Areas (Canada)

Potential Access Areas (Canada)

U.S. Points of Entry



5. NATURAL RESOURCE INVENTORY

5.1 Hydrology

- LaVerendrye Candidate Provincial Park, consisting of a series of interconnected lakes and rivers, provides an important source of recreation for water and water-related activities.

- It is the goal of the Ministry of Natural Resources to ensure management policies exist to minimize the effects of erosion, flooding and sedimentation, the management of habitats for fisheries and wildlife, and the coordination of water and related land management.

- Human activity, whether recreational or non-recreational, has a distinct impact on a waterway environment. As water is a primary resource the quality of the water has a direct bearing on the other resources of the area, such as vegetation or fish and wildlife.

- Three types of lakes are found in the LaVerendrye study area. "Eutrophic" lakes, which are warm, shallow and highly productive, "oligotrophic" lakes which are cold, clear, deep and oxygen-rich with low biological productivity and are good for recreational purposes, and "mesotrophic" or intermediate lakes.

- The Height of Land dividing the Great Lakes - St. Lawrence and Arctic watersheds located between North and South lakes, creates a natural physical division in the LaVerendrye water system. It averages 474 metres (1517 ft.) above mean sea level along its length within the Thunder Bay District, descending gradually north and south of Raith.

- To the East of the Height of Land, the morphology of the lakes and rivers reflect primarily the underlying geology of the area. Many of the lakes and rivers are generally elongated in shape and oriented in a South-easterly direction toward Lake Superior.

- West of the Height of Land, the drainage flows west and north from North Lake, through Gunflint Lake to Saganaga Lake. A rectilinear drainage pattern of small lakes, river and rapids north of Gunflint Lake is created by the broken terrain of the Saganaga Granite plutonic body.

5.2 Vegetation

- Waterway parks cannot contribute to the protection of large-scale life science features such as wetlands, forest communities, etc. Significant contribution can be made to the representation of individual site types and species.

- The LaVerendrye study area lies within the transition zone between the Great Lakes - St. Lawrence Forest Region and the Boreal Forest Region, in Hills (1959) Site Region 4W.

- Representation is made of biophysiographic units, defined as patterns of landforms and vegetation (Noble, 1979; Thacker, 1984).

- Six areas of botanical interest are identified by Thacker (1984). Extensions of the 200 m (656 ft.) boundary proposal are not anticipated in the effort to provide protective zoning for mose of these sites. (See Figures 11 to 13 for location and recommended zones.)

- The general character of the soils favoured the development of large stands of Eastern Red and White Pine.

- In the late 1800's and early 1900's, logging and forest fires resulted in the disappearance of these large stands of pine, and the dominance of boreal species such as Jack Pine, Trembling and Large-toothed Aspen, White Birch, Balsam Fir and White and Black Spruce.

- Red and White Pine occur less frequently than is apparent from the water, as they are abundant along shorelines, and on island outcrops and ridge tops.

- Little Gunflint Lake is floristically rich; the low-lying area supports Black and Red Ash as well as a lowland mixed forest.

- Many portage trails pass through low-lying areas supporting cedar groves and rich vegetative communities: examples of such locations are Long Portage and Cherry Portage.

- Where rare or unusual species have been identified for the study area further research is necessary; noteworthy species include the Barren Strawberry, Chaix's Speargrass and Locoweed, the latter two being previously unrecorded in Thunder Bay District.

- Rare or unusual species occur at their northern limit along the Pigeon River, in the vicinity of the Cascades; included are Basswood, Ironwood, White Elm and Red Maple.

Biophysiographic Unit Description (in immediate study area)

Ground Moraine

Ia-3 Weakly to strongly broken shallow sandy till over Proterozoic bedrock (mesa-cuesta)

Lacustrine Clay

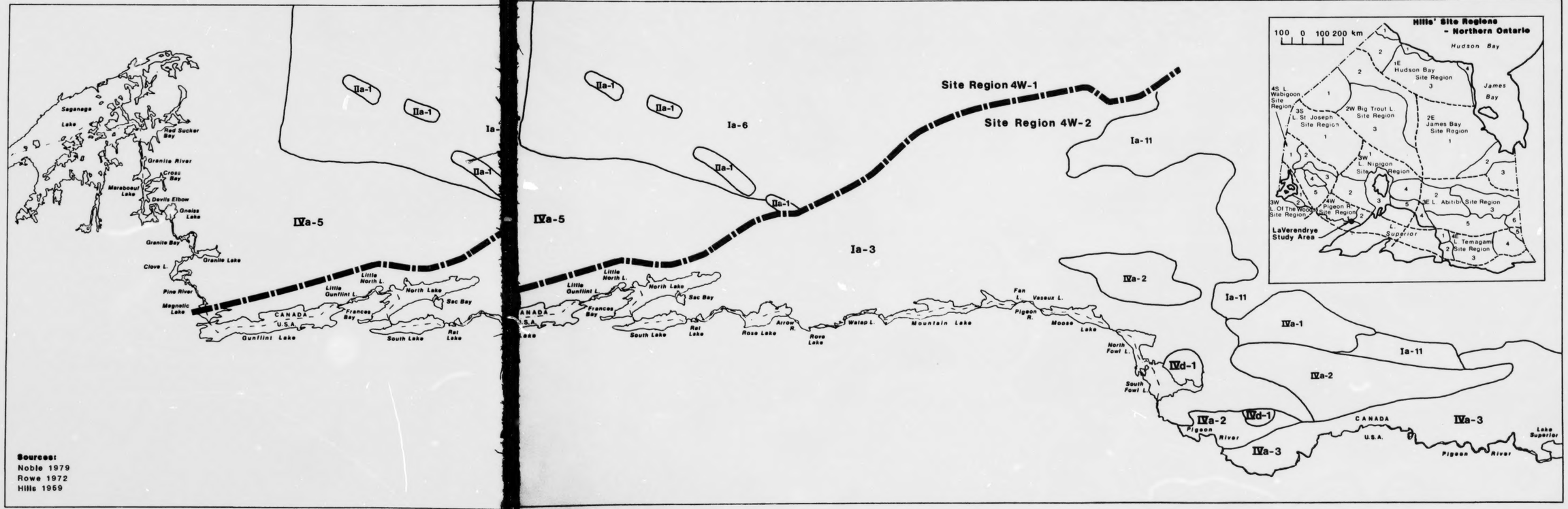
IVa-2 Weakly broken lacustrine clay plain (sandy till)

IVa-3 Weakly broken lacustrine clay plain with strongly broken areas of diabase dikes (sandy till)

IVa-5 Weakly broken lacustrine clay plain (sand outwash)

Deltaic Deposits

IVd-1 Weakly broken deltaic plain



Sources:
Noble 1979
Rowe 1972
Hills 1969

Figure 8

Biophysiographic Units

Site District Boundary

5.3 Fish

- In 1980, a provincial angler survey conducted by the Ministry of Natural Resources determined that the four most popular warmwater sportfish in the Thunder Bay District are Walleye, Northern Pike, Smallmouth Bass and Perch (in that order). These fish are found throughout the LaVerendrye waterway.

- Lake trout is the most popular cold water sportfish in the Thunder Bay District.

- Other noteworthy species include Pumpkinseed and Green Sunfish.

- The river between Arrow Lake and Rose Lake is identified as a Whitefish spawning area.

- Lake classifications and fish species in the LaVerendrye study area according to lake surveys are summarized in Table 2.

TABLE 2: LAKE CLASSIFICATIONS AND FISH SPECIES IN THE LAVERENDRYE STUDY AREA ACCORDING TO LAKE SURVEYS

LAKE	LAKE TROUT	WALLEYE	NORTHERN PIKE	SMALL-MOUTH BASS	PERCH	WHITE FISH	ACCESS*
Saganaga	X	X	P	X		X	Road access U.S. side
Maraboeuf		P	P	P		P	
Devil's Elbow		P	P	P		P	
Gneiss	X	P	P	X	P	P	
Granite Bay		P	P	X	P	P	
Granite		X	P	X	P	P	
Clove		P	P	P	P	P	
Magnetic	X	P	P	P	P		Motor from
Gunflint	X	P	P	X	P		Road access U.S. side
Little Gunflint		P	P*	P	P		Motor from Gunflint
Little North	X	P	P	X			
North	X	X	P*	X			Road access CDN. Side
South	X			X	P		
Rat				P*	P		
Rose	X	P		X	P	P	Motor from Arrow Lake
Rove				P	P*		
Watap				P	P*		
Mountain	X						Road access CDN. side
Fan							
Vaseux							
Moose	X	P		P		P	
North Fowl		X	P	X	P		Road access CDN. side
South Fowl		X	P	X	P		Motor from North Fowl

X - classification in Fish Management Plan, 1983
P - indicates Presence according to lake surveys
P* - indicates angling success according to lake surveys
* - accessible by canoe or portage only where not indicated

5.4 Wildlife

- LaVerendrye candidate park reflects a transition zone between the predominant Canadian Biotic Zone to the South and the influential Boreal Biotic Zone to the north.

- Wildlife habitat along the LaVerendrye waterway is diverse - from wetlands and marshes, to meadows and uplands.

- Wildlife viewing opportunities along the waterway are excellent, although somewhat reduced where the lakes are heavily populated by cottagers.

- Moose density is high on the northeast arm of Saganaga Lake and from Rose Lake eastward, and medium where the lakes are populated by cottagers and otherwise heavily used.

- White-tailed deer are found in higher numbers in the east, where Lake Superior has a moderating influence on the climate.

- Coyotes, brush and timber wolves and black bear are found throughout the study area.

- As many as 175 bird species occur in the area as either breeding, migrant or permanent residents; notable species include Osprey, Great Blue Herons and Ruffed and Spruce Grouse.

- Waterfowl species are not as abundant as they are in Southern Ontario or to the west; however, some duck species and common loons inhabit the waterway for part of the year.

- Seagull Island on Saganaga Lake supports a large heron rookery which is recommended for protection in the Thunder Bay District Sensitive Areas Report (1983).

- Amphibian species expected to occur, or observed in the area, include the American Toad, Spring Peeper, Boreal Chorus Frog, Leopard Frog, Wood Frog and the Gray Tree Frog.

- The Eastern Garter Snake and Western Painted Turtle have been observed in the area; other reptiles expected to occur are the Red-bellied Snake and the Snapping Turtle.

5.5 Geology

- Waterway parks cannot represent large geological units in their entirety; they are, however, an excellent vehicle with which to represent a large diversity of smaller units and features in an efficient manner.

- LaVerendrye candidate park traverses a diverse landscape which reflects the underlying geological conditions.

- The bedrock units generally decrease in age from west to east along the waterway.

- The oldest rocks exposed along the waterway are visible on the north shore of Saganaga Lake, and on the north shore of Gunflint Lake. The conspicuously straight north shore of Saganaga Lake reflects a faulted contact zone between metavolcanic rocks to the north and granitic rocks to the south, both of Early Precambrian (Archean) age, greater than 2500 million years old.

- The faultline along the north shore of Saganaga Lake, younger than the rock units it separates, is estimated to be between 1800 and 2500 million years old.

- In the area between Saganaga Lake and Gunflint Lake, the low hills are underlain by relatively uniform granitic rocks of the Saganaga Granite intrusive body. The blocky fracturing and joint system of this body is reflected in the rectilinear drainage pattern - the course of the Granite River and the shape of Cross Lake are good examples of this pattern.

- From Gunflint Lake eastward to the Pigeon River, the dominant influence on the topography consists of generally southward dipping sedimentary rocks of the Gunflint and Rove Formations (Middle Precambrian in age) and intervening sills and dikes of diabase (Late Precambrian in age).

- A billion years of differential erosion has produced a pattern of linear east-west valleys and ridges, as the relatively weaker sediments were removed from between the relatively more resistant diabase, which caps the distinctive mesas and cuetas typical to this area.

- Only the effects of the last episode of the most recent glaciation, the late Wisconsin, are evident in the surficial deposits.

- Geological features of interest include:
  - the "type section" of the Gunflint Formation on Gunflint Lake
  - red chert of the Gunflint Formation containing some of the country's oldest microfossils on North Lake
  - the type area of the Rove Formation well-exposed on North Fowl Lake
  - sand plains and spillway channels related to glacial lake O'Connor on the Fowl Lakes
  - clay deposits related to post-glacial lake levels in the Superior basin
  - the Height of Land between North and South Lakes representing the

Figure 9

Geology

2 1 0 2 4 6 km

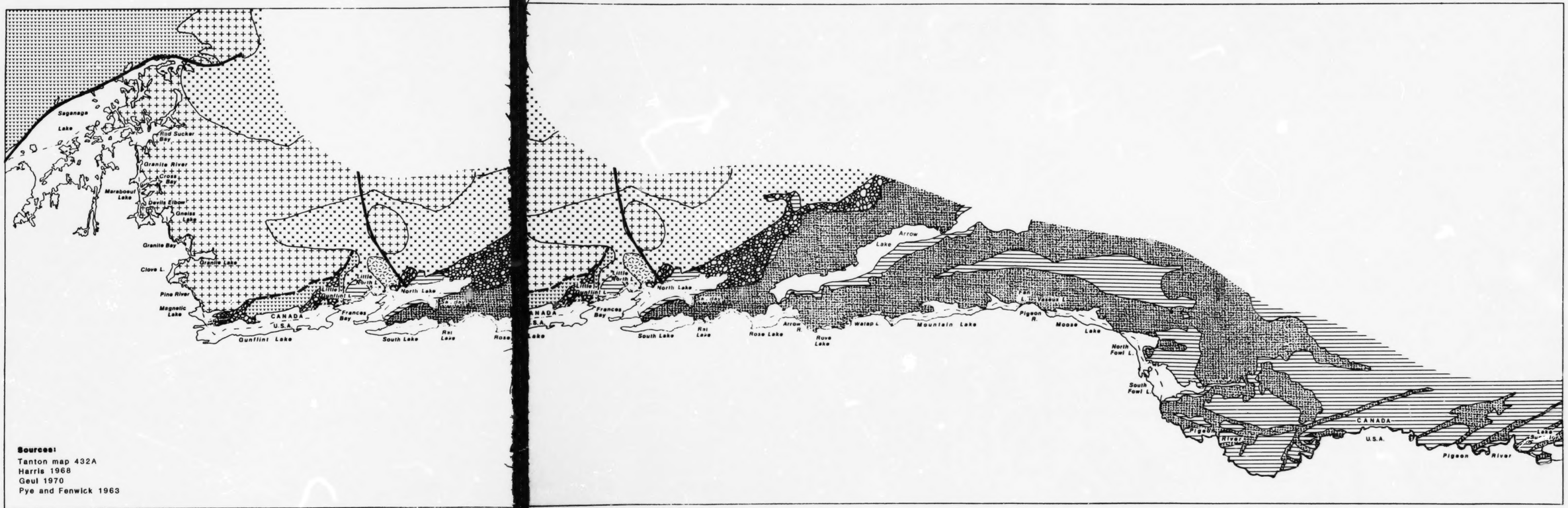
North

LATE PRECAMBRIAN
- diabase (sills and dikes)

MIDDLE PRECAMBRIAN
- ROVE FORMATION (shale, argillite, greywacke)
- GUNFLINT FORMATION (chert, shale)

EARLY PRECAMBRIAN granite rocks
- undifferentiated
- SAGANAGA GRANITE
- NORTHERN LIGHT GNEISS

volcanic rocks
- north shore volcanics



Sources:
Tanton map 432A
Harris 1968
Geul 1970
Pye and Fenwick 1963

division between two first order watersheds, the Arctic Watershed to the north, and the Atlantic Watershed to the East.

- Slight extensions to the 200 m (656 ft.) boundary proposal to incorporate geological features are recommended at North and Rove Lakes.

6. CULTURAL RESOURCES

6.1 Archaeology

- A preliminary archaeological survey of the study area was undertaken in 1975 (Newton and Engelbert, 1975). Additional information has been added by other researchers since that time.

- This research has revealed that the area has been in use by natives and newcomers since the retreat of the glaciers about 10,000 years ago. Table 3 tabulates the archaeological finds on the basis of the classification scheme presently in use in Ontario, and the number of sites to which each unit has been ascribed (Note that some sites included artifacts of more than one unit).

- An archaeological site is defined as, artifacts in association with one another, and evidence of human occupation as shown by remains of fireplaces, dumps and structures through the appearance of rock outlines, post marks, etc.

- The 1975 study concluded essentially that:
  - . many sites are in danger of destruction due to present-day overuse
  - . further research is required on most sites, particularly, detailed inventory

- See Table 4 for a summary of prehistoric and historic events in the study area.

TABLE 3

Time Frame (Approximate)	Culture	No. of Sites
	Prehistoric Unknown	29
7500 B.C. - 5000 B.C.	Paleao- Indian	0
5000 B.C. - 200 B.C.	Shield Archaic	2
200 B.C. - 1100 A.D.	Middle (Initial) Woodland	0
900 A.D. - 1650 A.D.	Late (Terminal) Woodland	10
1650 A.D. - Present	Fur trade	2
	Late Historic	2
Total No. of Representational Units:		45

6.2 History: LaVerendrye and the Fur Trade

- 1731 - Pierre Gaultier de Varrenes de la Verendrye, a French soldier and adventurer, became the first European to travel the Pigeon River/boundary waters canoe route in search of an easy passage to the Pacific.

- LaVerendrye's death in 1749 ended an era of vigorous exploration by the French, during which time an extensive fur trading operation had been established and the respect of the native populations won. The boundary waters, accessed from Lake Superior via the Grand Portage, was the major route into the Canadian interior and the far west.

TABLE 4: HISTORICAL SUMMARY

WORLD EVENTS		Culture	NORTHERN ONTARIO Salient Markers
	Historic		
World War 1	A.D. 1900	EUROPEAN HISTORIC -European	Logging Railway
Confederation U.S. Civil War			
		HISTORIC FUR TRADE -European -Ojibway -Cree	Trade goods, iron, beads, ceramics, pipes
	A.D. 1800		
Fall of New France War of Independence LaVerendrye's Explorations			
	A.D. 1700	LATE WOODLAND -Blackduck -Selkirk	Pictographs, new pottery types, large campsites, gathered wild rice, hunting, fishing, gathering, mound builders
	A.D. 1600		
	Prehistoric		
	A.D. 1500		
Columbus rediscovers America			
		MIDDLE WOODLAND -Laurel	Mound builders Introduction of pottery, smaller tools fishing
Vikings reach Newfoundland	A.D. 1000		
Fall of Rome	A.D. 500		
Birth of Christ	0		
	500 B.C.	ARCHAIC -Shield	Use of stone tools, notched projectile points, first appearance of copper tools, beginnings of fishing technology
Stonehenge	1000 B.C.		
King Tutankhamqm	2000 B.C.		
Pyramids of Giza	5000 B.C.	Paleo - Indian -Plano	Restricted to southern margins of area, fluted stone spearpoints, large game hunting
Origins of Agriculture in Asia	8000 B.C.		

- After the fall of New France in 1794 to Britain (at the Battle of the Plains of Abraham), British fur traders took over the old French routes and posts.

- The North West Company, composed of Montreal-based merchants and traders, maintained control over much of the fur trade of the area, using the Pigeon River route until its abandonment in favour of the less rigorous Kaministikwia route in 1803.

- Boundary disputes between Britain and the United States, the result of inadequate mapping of the area, were finally resolved by the Webster-Ashburton Treaty of 1842, which placed the border along the present route. By this time, the North West Company and Hudson Bay Company had merged, and the depleted border area had been abandoned for the more lucrative trade farther north.

- Several quiet decades followed, only to be broken by renewed interest in the area's mineral and timber wealth in the 1880's.

6.3 History: 1882 - Present

- In 1882, the first timber lands were sold along the boundary lakes. In order to access these, and mineral discoveries in Minnesota, the Port Arthur, Duluth and Western (PAD & W) Railway was financed and built, reaching Whitefish Lake from Port Arthur in early 1891.

- 1 June 1892 - the PAD & W was completed at an estimated cost of $1,296,000. The line paralleled the International Boundary from North Lake westward to the narrows between Gunflint and Magnetic Lakes. The main commodities carried by the train were timber, iron ore, and some gold and silver.

- American plans to join the line from Duluth failed, leaving the PAD & W stranded at Gunflint Lake, 138 km (86 mi.) west of Port Arthur.

- Poor construction along the line, leading to derailments, washouts and mudslides, in combination with a series of devastating forest fires, rising taxation on lakefront property and generally bad management, caused the PAD & W to be sold at a bankruptcy auction in 1900 to the Great Northern Railway.

- Declining commercial use followed, causing the rails to be pulled up west of North Lake in 1904, and west of Mackies by 1934. Use of sections of the line by the Ontario Forest Fire Service and local hunters and fishermen continued.

- 24 March, 1938 - Last train ran along the old PAD & W line. The rails were pulled up, the railbed reverted to district roads, and the old stations converted to stores and post offices.

- By 1940, increased access by floatplane opened up the area to cottage and resort development, reaching a peak in the late 1950's.

- Concern for the environment in the late 1950's caused the creation of a series of park reserves along the waterway in 1962.

- Laverendrye Park Reserve was created in 1973. It consisted of a 122 m (400 ft.) shoreline reserve from the south end of Saganaga Lake to the east Devon Township line, including the access locations previously identified.

- In 1983, a 200 m (656 ft.) shoreline reserve between Quetico and Middle Falls Provincial Parks was established as a candidate waterway park in the Thunder Bay District Land Use Guidelines; included in this reserve is the Pigeon River Clay Plain Candidate Nature Reserve, identified in the life science systems plan for Site Region 4W.

7. CONSTRAINTS AND CAPABILITIES ANALYSIS

- The proposed access or development nodes have been surveyed at a reconnaissance level for their suitability and capability to support development consistent with the needs of the public to access the waterway.

- Areas within each proposed access zone were outlined and classified as to the general degree of constraint to development: high, medium and low:

  . high constraint to development - areas where development of any type is not recommended due to severe natural limitations (cliffs, bare bedrock, swamps, etc.);

  . medium constraint to development - areas in which natural conditions are variable, and may pose problems to major development schemes;

  . low constraints to development - areas of few natural limitations to major development schemes (flat sand plains, thick soils, good drainage, etc.).

- In general, Mountain Lake and North Fowl Lake proposed access zones offer the best opportunities for the development of facilities appropriate to a waterway park. This is reflected in the existing use of these two areas as access to the waterway.

- Gunflint Lake access zone proposal offers little opportunity for access development due to the constraints imposed by the rugged bedrock uplands which dominate the area. The flat sand plain south of this zone proposal is an ideal area for access development; however, the entire area west of the zone proposal is privately owned, and access to the sand flats would be physically problematical, given its isolation in a rugged landscape.

- Access development opportunities at Saganaga Lake and the Cascades proposed access nodes are somewhat limited by site conditions in both areas. The maximum extent of possible development must be determined by further detailed surveys.

- Due to the limited potential of the Gunflint Lake access zone to support development. Possible alternate zones on North Lake have been identified. This site has not been surveyed for constraints to development. However, preliminary surveys suggest that potential for development is good.

Figure 10

Constraints To Development in Potential Access Nodes

High

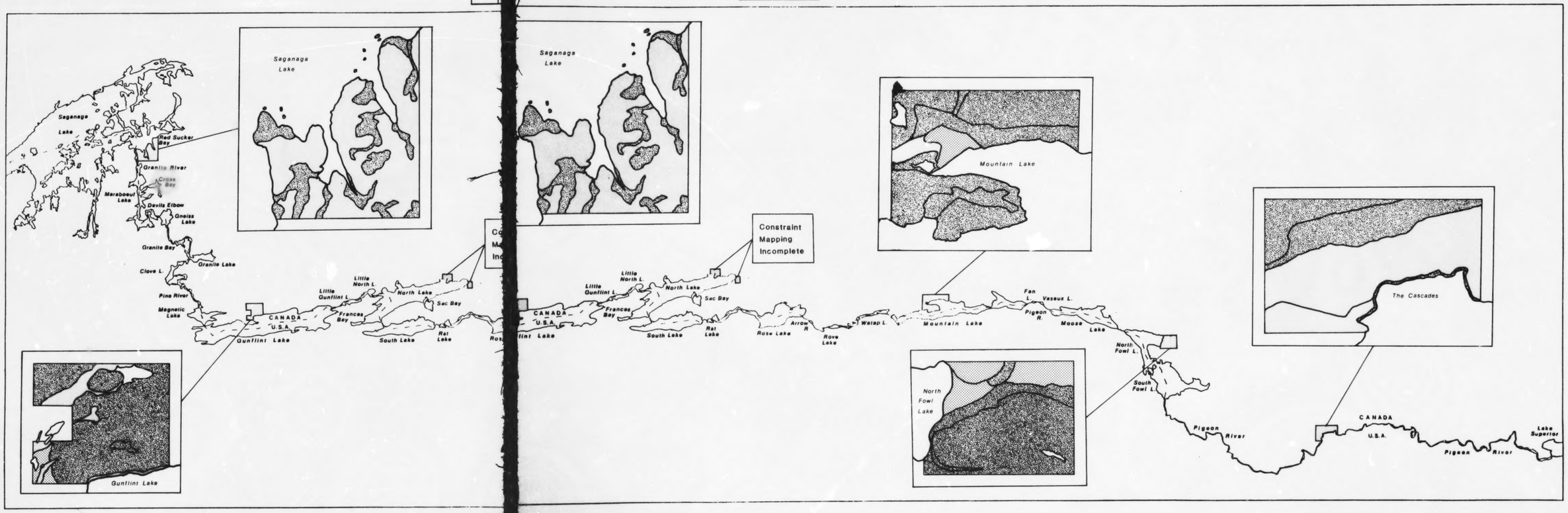
Moderate

Low

2 1 0 2 4 6 km

North

(For Inset Maps)
0 300 600 900 m



8. ISSUES

- The issues related to the creation of a provincial park in the LaVerendrye study area are complex.

- There are a number of interest groups on both sides of the Ontario-Minnesota border adjacent to and within the candidate park with concerns about the creation of a provincial park along the boundary waters (Table 5).

- The land adjacent to the LaVerendrye park proposal on the U.S. side of the border lies primarily within the Superior National Forest and the Grand Portage Indian Reservation. Within the Superior National Forest, the majority of land is managed as the Boundary Waters Canoe Area (B.W.C.A.); the small remainder is privately owned, predominantly on Gunflint Lake.

- The major concerns of the United States Forest Service (U.S.F.S.), administrators of the B.W.C.A., are that a conflict of use will occur on lakes shared by the B.W.C.A. and LaVerendrye and that a provincial park will result in increased pressure on the American side of the boundary waters.

- Private resort owners on the American side fear that restrictions on the Canadian boundary waters will result in a loss of business, although some have expressed a favourable attitude toward better regulation of Ontario's resources.

- Canadian resort owners on Saganaga Lake and Northern Light Lake are concerned that a provincial park will lead to increased competition and a loss of business due to restrictions on the boundary waters.

- The large number of property owners within the candidate park are primarily concerned with the fate of their property. Although some welcome better regulation of the area's natural resources, most fear an increased use of the boundary waters, with its resultant increased pressures on the land and waters. Others fear restrictions on motor size, user group size, and motorized travel which impact on their lifestyle and businesses. Some American citizens with property in the proposed park area fear expropriation and loss of their property because of similar experiences when the B.W.C.A. was created.

- Sportsmen and tourists are concerned with potential restrictions and regulations (e.g. permit requirements) and the potential loss of commercial camps at which to stay.

- People who utilize the natural resources of the area - trappers, private timber operators, and persons with mining claims, are concerned with the effect a provincial park will have on their activities.

- The Ministry of Natural Resources has identified several issues and concerns, many of which are shared by other groups. One issue is the delineation of the park boundary such that park values are maintained while allowing a minimum impact on the park by mineral extraction north of Saganaga Lake, and on timber extraction throughout the entire park.

TABLE 5: ISSUES

The following table of concerns was prepared after examining the issues raised at meetings, and in letters and telephone conversations.

ISSUE	PROPERTY OWNERS	U.S.F.S. BWCA	RESORT OWNERS	SPORTSMEN, TOURISTS	RESOURCE BENEFIT GROUPS
Future Status of Land Ownership	x		x		
Impact on Business (Resorts)			x	x	
Effect of Restrictions on Resource Use	x	x	x	x	x
Restrictions in Favour of Special Interest Groups	x		x	x	x
Trapping Restrictions					x
Fishing/Hunting Restrictions	x		x	x	
Permit Requirements	x	x	x	x	x
Fuelwood Cutting Restrictions	x		x		
Aircraft Landing Restrictions		x	x		x
Restrictions/Banning of Motors	x	x	x	x	x
Shoreline Depredation	x	x	x		
Pollution/Garbage Dumps	x	x	x		
Overuse/Abuse of Resources	x	x	x		
Effect on Water Quality of Increased Use	x	x	x		
Conflict of Use on Boundary Waters		x			
Increased Fire Hazard	x		x		
Mining Industry Restrictions					x

- The overuse of campsites along the waterway by large groups of campers is another concern. Many sites have deteriorated and are in very poor condition as a result of the heavy use. The accumulation of garbage, particularly on Saganaga Lake, is another concern. There is also concern that the fishery resources on Saganaga Lake are declining as a result of heavy fishing pressure.

- The Ministry of Citizenship and Culture has identified the concern that with the formation of a new park, it would be expected to see increased access to the area. This would result in more traffic over the portages and an increased use of campsite areas. As there is a strong correlation between archaeological sites and modern campsites, this increase in traffic will undoubtedly have a large impact on site preservation.

9. BOUNDARY AND ZONING OPTIONS

Three different options have been prepared which represent different approaches that can be taken to determining boundaries, zones and policies for LaVerendrye. While each is different in its "emphasis" or "focus", any one, if implemented, would achieve basic park objectives.

It is not expected that one of the three options will necessarily be selected for implementation in its present form. Rather, the options are presented to provide a basis for discussion between park planners and resource managers, government administrators, park users, and any others with an interest in the park area. The option finally developed for implementation may be one of the three presented here with little or no modification, or may be a blend of all three, or may be much different from any of the three options presented. Public participation in this planning exercise will play a major role in the development of a final option.

Summary of Options

The "focus" of each option is different, and is detailed on the following pages.

Common Elements:

Some elements remain common to all options. These include the following:

- The park will form a corridor from Quetico Provicial Park to Middle Falls Provincial Park.
- Only Crown land will be incorporated into the park.
- No privately owned land will be acquired for park purposes. If, however, privately owned land is placed for sale on the market, the MNR will consider purchase if acquisition of the property will enhance the achievement of park objectives.
- No motor or horsepower restrictions are proposed for Saganaga Lake.
- Sport fishing, hunting and trapping will continue to be allowed with some restrictions.
- Aircraft and snowmobile use will be permitted.
- Group size restrictions for camping will be implemented.
- Nature Reserve Zone (Pigeon River Clay Plain).

Differing Elements:

Some elements differ considerably between options. These include the following:

- Land disposition within access/development zones.
- Private sector involvement.

- Mineral exploration (Exploratory Licences of Occupation).
- Motor boat restrictions on lakes other than Saganaga.
- Boat cache restrictions
- Quotas on backcountry camping.
- Can and bottle ban.
- Boundary configuration.

Each option is illustrated on a map which shows the boundary configuration and zones within the park. Each map is followed by a table which indicates policies related to each zone.

Zones:

Some zones remain constant through all options, and some vary between options. The following will provide some background.

Common Zones:

- Natural Environment - Zone 1. This comprises the major portion of the waterway park, and extends from the western boundary to the eastern boundary. Minimal development will take place within this zone, and will be restricted to the development of backcountry campsites, portages and possibly unmanned interpretive stations. All water areas within the park are in this zone.
- Natural Environment - Zones, 2, 3, 4, 5, 6. These zones have been identified as having the potential to harbour rare and unusual plant species. Until further intensive field surveys have established the presence or absence of these species, the zones will receive interim protection. No development will be permitted, and human interference (other than for research purposes) will be discouraged. Only land areas are included in these zones.
- Nature Reserve. This zone incorporates the Pigeon River Clay Plain. A maximum of protection will be provided, with no development or human interference permitted.

Variable Zones:

- Development zones. Within these zones, development of recreational, interpretive, access and other service facilities will be permitted.
- Access zones. Within these zones, development of facilities will be limited to those which provide access to the waterway park. Development of major recreational facilities will not take place.

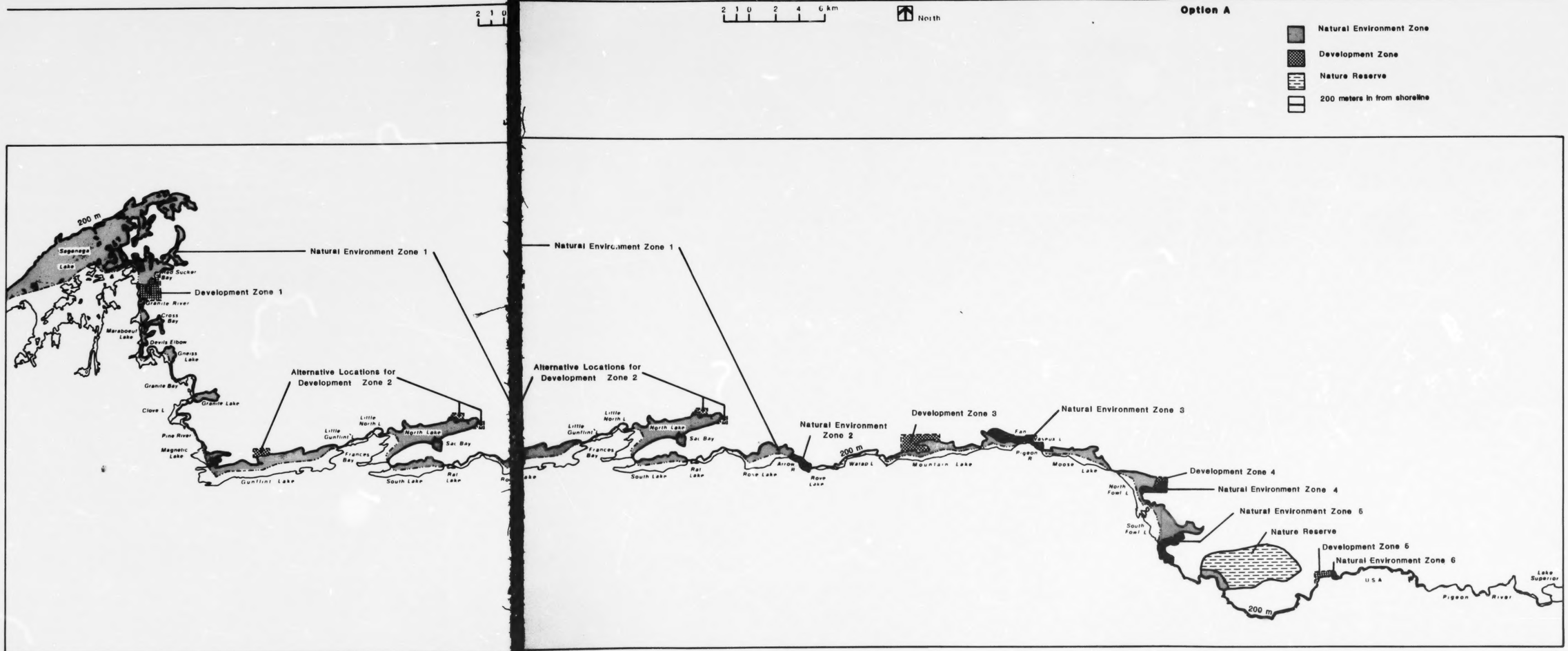
9.1 Option A

Focus and Highlights

- Major development to take place within development zones. Could include lodges, cabins, campgrounds, outfitters, etc.
- Most development to be undertaken by the private sector. Most operation by private sector.
- Least restrictions on recreational use of park.
- Most varied recreational opportunities.
- Boundary to remain 200 metres in from shore throughout park, except in development zone and nature reserve zone.
- Mineral exploration on Saganaga Lake to be allowed. (Through exploratory licence of occupation, with specific restrictions.)
- Total land area: 8,947 ha.

Figure 11

Option A



OPTION A

Y = YES/PERMITTED
N = NO/NOT PERMITTED
NA = NOT APPLICABLE

ACTIVITIES/USES	DEVELOPMENT ZONE					NATURAL ENVIRONMENT ZONE						NATURE RESERVE ZONE
	1	2	3	4	5	1	2	3	4	5	6	1
LAND AND WATER												
. Mining Exploration	N	N	N	N	N	N[1]	N	N	N	N	N	Y
. Gravel Extraction	Y	Y	Y	Y	Y[2]	N	N	N	N	N	N	N
. Roads and Utilities	Y	Y	Y	Y	Y	N	N	N	N	N	N	N
. Waste Disposal Sites	Y	N	N	N	N	N	N	N	N	N	N	N
. Water Level Control	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
. Water Quality Monitoring	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Land Disposition	Y	Y	Y	Y	Y[3]	N	N	N	N	N	N	N
VEGETATION												
. Commercial Forest Operations	N	N	N	N	N	N	N	N	N	N	N	N
. MNR Management	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N
. Landscaping	Y	Y	Y	Y	Y	N	N	N	N	N	N	N
. Fire Control	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. Insect and Disease Control	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. Fuelwood Cutting Areas	N	N	N	N	N	N[4]	N	N	N	N	N	N
FISHERIES												
. Sport Fishing	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Season Length	NA	NA	NA	NA	NA	Y[5]	NA	NA	NA	NA	NA	NA
. Catch Limits	NA	NA	NA	NA	NA	Y[6]	NA	NA	NA	NA	NA	NA
. Stocking	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Spawn Collection	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Bait Fish (use)	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA

[1] E.L.O. on Saganaga Lake only.
[2] For Development/Maintenance
[3] Lease or Permit
[4] Permitted on Saganaga Lake - Designated Areas
[5] Adjusted in conjunction with State of Minn.
[6] Adjusted in conjunction with State of Minn.

ACTIVITIES/USES	DEVELOPMENT ZONE					NATURAL ENVIRONMENT ZONE						NATURE RESERVE ZONE
	1	2	3	4	5	1	2	3	4	5	6	1
. Commercial Bait Fishing	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Commercial Fishing	NA	NA	NA	NA	NA	N	NA	NA	NA	NA	NA	NA
WILDLIFE												
. Hunting	N	N	N	N	N	Y	Y	Y	Y	Y	Y	N
. Trapping	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
. Nuisance Animal Control	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
RECREATION/TOURISM												
. Day Use	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
. Car Camping	Y	Y	Y	Y	Y	NA	NA	NA	NA	NA	NA	NA
. Back Country Camping	NA	NA	NA	NA	NA	Y	Y	Y	Y	Y	Y	N
. Motor Boats	NA	NA	NA	NA	NA	Y[7]	NA	NA	NA	NA	NA	NA
. Boat Caches	N	N	N	N	N	Y[8]	N	N	N	N	N	NA
. Aircraft	NA	NA	NA	NA	NA	Y[9]	NA	NA	NA	NA	NA	NA
. Snowmobiles	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N[10]
. X-Country Trails	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
. Hiking Trails	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
. Group Size Limit	NA	NA	NA	NA	NA	Y[11]	Y	Y	Y	Y	Y	NA
. Quotas	NA	NA	NA	NA	NA	N	N	N	N	N	N	NA
. Can/Bottle Ban	NA	NA	NA	NA	NA	N	N	N	N	N	N	NA
. Campsite Closure	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA
. Campsite Designation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA
. Campsite Development	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N
. Campsite Rehabilitation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA
. Commercial Facilities	Y[12]	Y	Y	Y	Y	N	N	N	N	N	N	N
. Interpretive Facilities	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
RESEARCH												
. Activities	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. Facilities	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

[7] No motor size limit
[8] Commercial Operators only
[9] Permission of MNR
[10] Trappers only
[11] 10 Persons/group/campsite
[12] Private sector development promoted

9.2 Option B

Focus and Highlights

- Development to take place within development zones. Would include campgrounds and related facilities.
- Most development to be undertaken by the Ministry of Natural Resources (MNR). Most operation by MNR.
- Some restrictions on recreational use of park.
- Varied recreational opportunities, but somewhat less than Option A.
- Boundary to be 200 metres in from shore along majority of the waterway. However, reduced to 100 metres where this distance is adequate to maintain park values, and increased in other areas to maintain a skyline view and/or incorporate significant resource features.
- Mineral exploration on Saganaga Lake to be allowed. (Through exploratory licence of occupation, with specific restrictions.)
- Total land area: 9,131 ha.

Figure 12

Option B

2 1 0 2 4 6 km

North

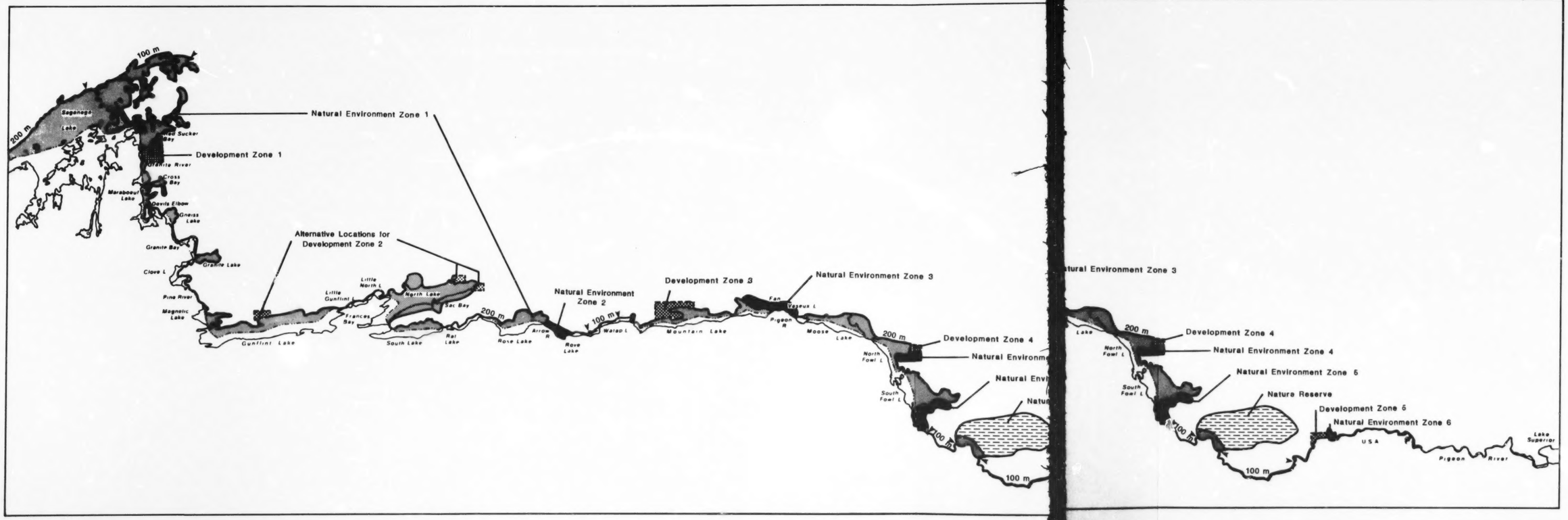


Figure 12

Option B

Natural Environment Zone

Development Zone

Nature Reserve

200 meters in from shoreline
V variable V

atural Environment Zone 3
Development Zone 4
Natural Environment Zone 4
Natural Environment Zone 5
Nature Reserve
Development Zone 6
Natural Environment Zone 6
100 m
200 m
Lake
North Fowl L
South Fowl L
USA
Pigeon River
Lake Superior

ACTIVITIES/USES	DEVELOPMENT ZONE					NATURAL ENVIRONMENT ZONE						NATURE RESERVE ZONE
	1	2	3	4	5	1	2	3	4	5	6	1
WILDLIFE												
. Hunting	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
. Trapping	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. Nuisance Animal Control	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
RECREATION/TOURISM												
. Day Use	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
. Car Camping	Y	Y	Y	Y	Y	NA	NA	NA	NA	NA	NA	NA
. Back Country Camping	NA	NA	NA	NA	NA	Y	Y	Y	Y	Y	Y	N
. Motor Boats	NA	NA	NA	NA	NA	Y[6]	NA	NA	NA	NA	NA	NA
. Boat Caches	Y	Y	Y	Y	Y[7]	Y[8]	N	N	N	N	N	N
. Aircraft	NA	NA	NA	NA	NA	Y[9]	NA	NA	NA	NA	NA	NA
. Snowmobiles	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N[10]
. X-Country Trails	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
. Hiking Trails	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
. Group Size Limit	NA	NA	NA	NA	NA	Y[11]	Y	Y	Y	Y	Y	NA
. Quotas	NA	NA	NA	NA	NA	N	N	N	N	N	N	NA
. Can/Bottle Ban	NA	NA	NA	NA	NA	Y[12]	Y	Y	Y	Y	Y	N
. Campsite Closure	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA
. Campsite Designation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA
. Campsite Development	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N
. Campsite Rehabilitation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. Commercial Facilities	Y[13]	Y	Y	Y	Y	N	N	N	N	N	N	N
. Interpretive Facilities	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
RESEARCH												
. Activities	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. Facilities	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

[6] No motors between Saganaga Falls and Magnetic Lake
[7] Commercial Operators Only
[8] No caches between Saganaga Falls and Magnetic Lake
[9] Permission of MNR
[10] Trappers only
[11] 10 Person/group.campsite
[12] Designated Lakes Only
[13] Private Sector Development Promoted

OPTION B

Y = YES/PERMITTED
N = NO/NOT PERMITTED
NA = NOT APPLICABLE

ACTIVITIES/USES	DEVELOPMENT ZONE					NATURAL ENVIRONMENT ZONE						NATURE RESERVE ZONE
	1	2	3	4	5	1	2	3	4	5	6	1
LAND AND WATER												
. Mining Exploration	N	N	N	N	N	N[1]	N	N	N	N	N	Y
. Gravel Extraction	Y	Y	Y	Y	Y[2]	N	N	N	N	N	N	N
. Roads and Utilities	Y	Y	Y	Y	Y	N	N	N	N	N	N	N
. Waste Disposal Sites	Y	N	N	N	N	N	N	N	N	N	N	N
. Water Level Control	NA	NA	NA	NA	NA	N	N	N	N	N	N	NA
. Water Quality Monitoring	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Land Disposition	N	N	N	N	N	N	N	N	N	N	N	N
VEGETATION												
. Commercial Forest Operations	N	N	N	N	N	N	N	N	N	N	N	N
. MNR Management	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N
. Landscaping	Y	Y	Y	Y	Y	N	N	N	N	N	N	N
. Fire Control	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. Insect and Disease Control	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. Fuelwood Cutting Areas	N	N	N	N	N	N[3]	N	N	N	N	N	N
FISHERIES												
. Sport Fishing	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Season Length	NA	NA	NA	NA	NA	Y[4]	NA	NA	NA	NA	NA	NA
. Catch Limits	NA	NA	NA	NA	NA	Y[5]	NA	NA	NA	NA	NA	NA
. Stocking	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Spawn Collection	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Bait Fish (use)	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Commercial Bait Fishing	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Commercial Fishing	NA	NA	NA	NA	NA	N	NA	NA	NA	NA	NA	NA

[1] E.L.O. on Saganaga Lake only.
[2] For Development/Maintenance
[3] Permitted on Saganaga Lake - Designated Areas
[4] Adjusted in conjunction with State of Minn.
[5] Adjusted in conjunction with State of Minn.

9.3 Option C

Focus and Highlights

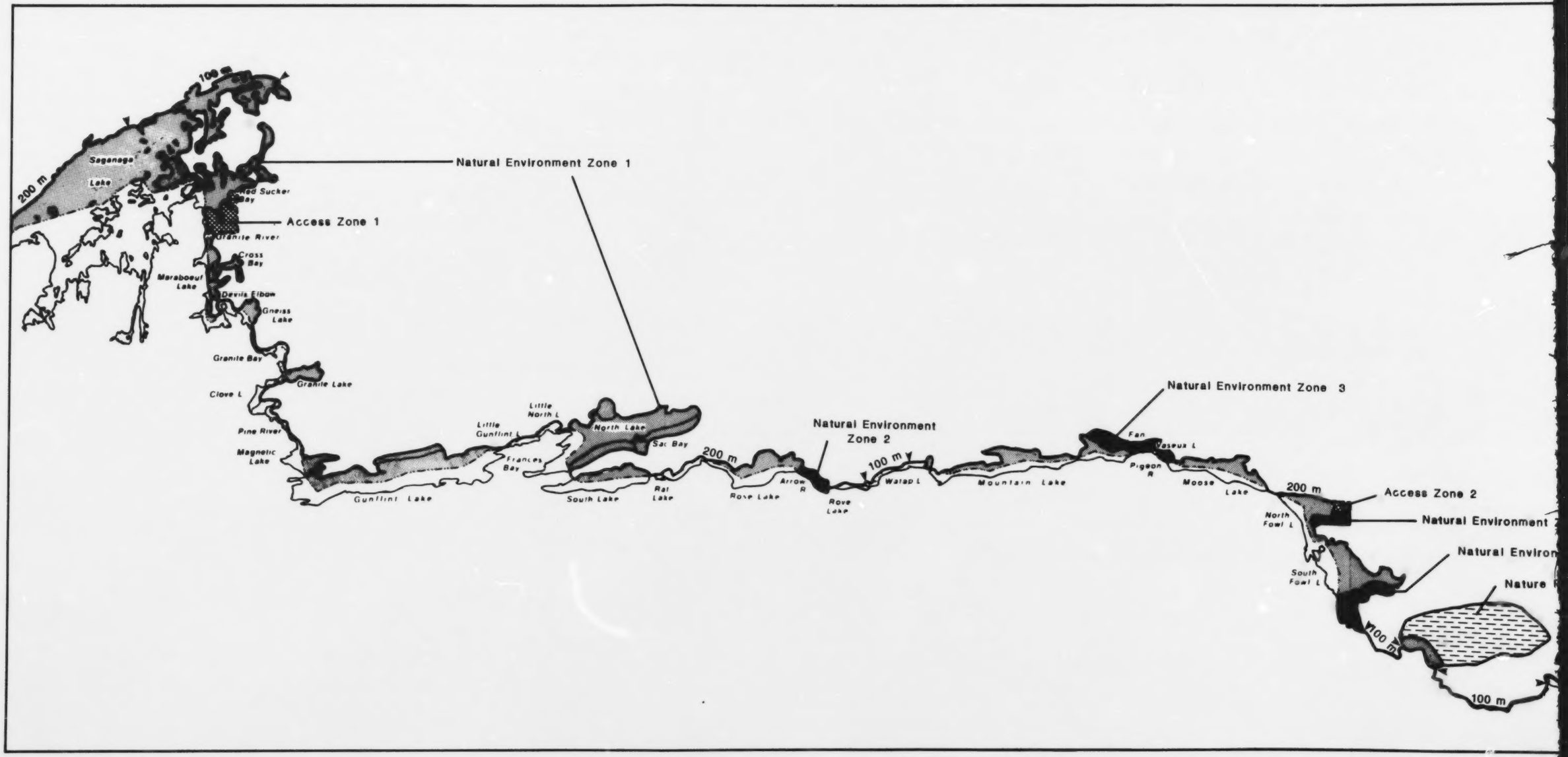
- Limited development to take place within access zones. Would include only basic facilities required to provide access to the park. Fewer access zones than development zones in the other options.
- All development to be undertaken by MNR. All operation by MNR.
- Most restrictions on recreational use of park. In some areas restrictions will mirror those of the B.W.C.A.
- Variety of recreational opportunities is less than in other options.
- Boundary configuration similar to Option B, except nodes for development/access deleted at Gunflint and Mountain Lakes.
- No mineral exploration allowed within park boundaries.
- Total land area: 8,900 ha.

Figure 13

Option C

2 1 0 2 4 6 km

North



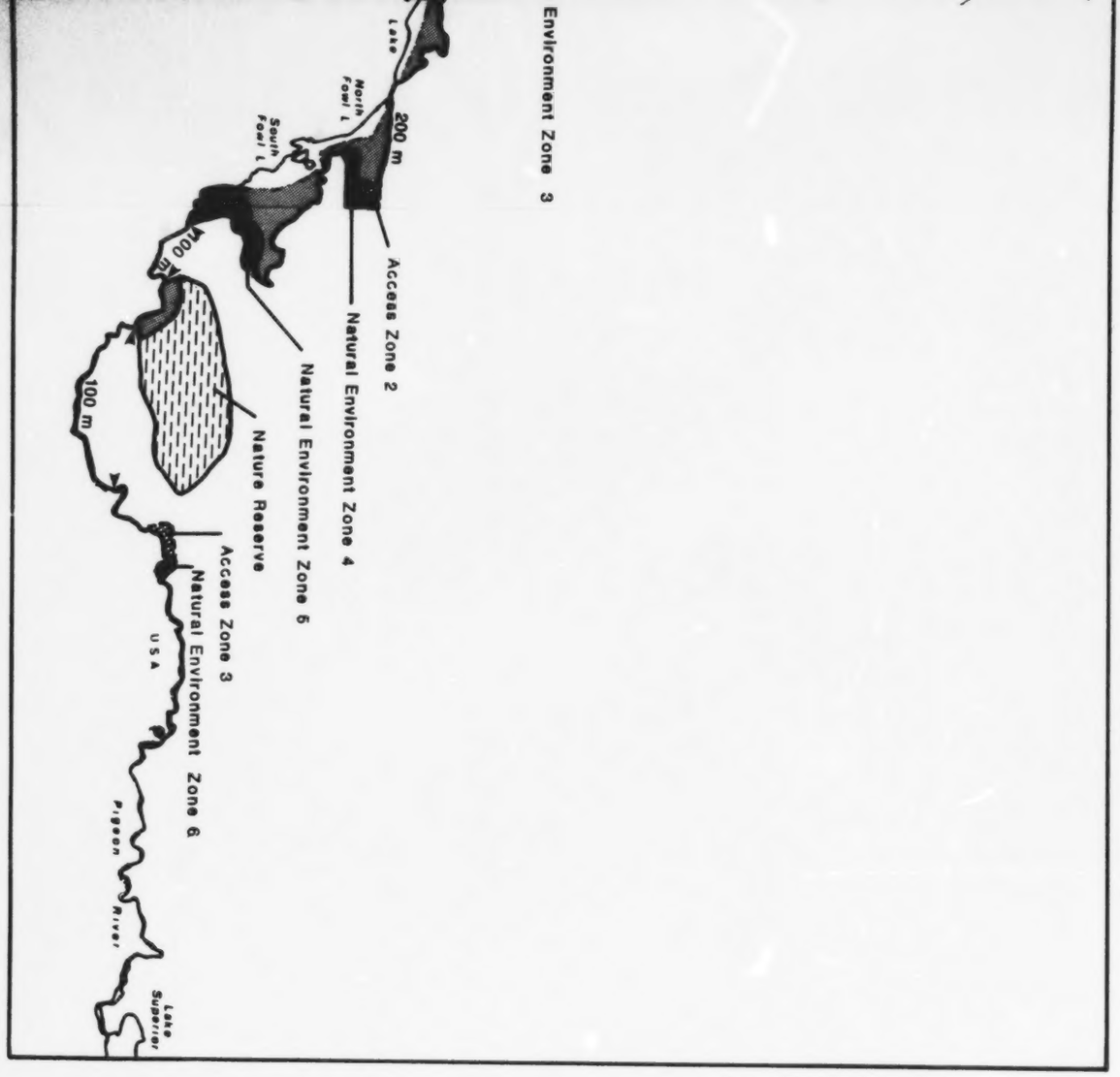


Figure 13

OPTION C

Y = YES/PERMITTED
N = NO/NOT PERMITTED
NA = NOT APPLICABLE

ACTIVITIES/USES	ACCESS ZONE			NATURAL ENVIRONMENT ZONE						NATURE RESERVE ZONE
	1	2	3	1	2	3	4	5	6	1
LAND AND WATER										
. Mining Exploration	N	N	N	N	N	N	N	N	N	N
. Gravel Extraction	Y	Y	Y[1]	N	N	N	N	N	N	N
. Roads and Utilities	Y	Y	Y	N	N	N	N	N	N	N
. Waste Disposal Sites	Y	N	N	N	N	N	N	N	N	N
. Water Level Control	NA	NA	NA	N	NA	NA	NA	NA	NA	NA
. Water Quality Monitoring	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Land Disposition	N	N	N	N	N	N	N	N	N	N
VEGETATION										
. Commercial Forest Operations	N	N	N	N	N	N	N	N	N	N
. MNR Management	Y	Y	Y	Y	N	N	N	N	N	N
. Landscaping	Y	Y	Y	N	N	N	N	N	N	N
. Fire Control	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. Insect and Disease Control	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. Fuelwood Cutting Areas	N	N	N	N[2]	N	N	N	N	N	N
FISHERIES										
. Sport Fishing	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Season Length	NA	NA	NA	Y[3]	NA	NA	NA	NA	NA	NA
. Catch Limits	NA	NA	NA	Y[4]	NA	NA	NA	NA	NA	NA
. Stocking	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Spawn Collection	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Bait Fish (use)	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Commercial Bait Fishing	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
. Commercial Fishing	NA	NA	NA	N	NA	NA	NA	NA	NA	NA

[1]Maintenance and Development only
[2]Permitted on Saganaga Lake - designated areas
[3]Adjusted in conjunction with State of Minn.
[4]Adjusted in conjunction with State of Minn.

ACTIVITIES/USES	ACCESS ZONE			NATURAL ENVIRONMENT ZONE						NATURE RESERVE ZONE
	1	2	3	1	2	3	4	5	6	1
WILDLIFE										
. Hunting	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
. Trapping	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. Nuisance Animal Control	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
RECREATION/TOURISM										
. Day Use	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
. Car Camping	Y	Y	Y	NA	NA	NA	NA	NA	NA	NA
. Back Country Camping	NA	NA	NA	Y	Y	Y	Y	Y	Y	N
. Motor Boats	NA	NA	NA	Y[5]	NA	NA	NA	NA	NA	NA
. Boat Caches	N	N	N	N	N	N	N	N	N	NA
. Aircraft	NA	NA	NA	Y[6]	NA	NA	NA	NA	NA	NA
. Snowmobiles	Y	Y	Y	Y	N	N	N	N	N	N[7]
. X-Country Trails	Y	Y	Y[8]	Y	Y	Y	Y	Y	Y	N
. Hiking Trails	Y	Y	Y[9]	Y	Y	Y	Y	Y	Y	N
. Group Size Limit	NA	NA	NA	Y[10]	Y	Y	Y	Y	Y	NA
. Quotas	NA	NA	NA	Y	Y	Y	Y	Y	Y	NA
. Can/Bottle Ban	NA	NA	NA	Y[11]	Y	Y	Y	Y	Y	Y
. Campsite Closure	NA	NA	NA	Y[11]	Y	Y	Y	Y	Y	NA
. Campsite Designation	Y	Y	Y	Y	N	N	N	N	N	NA
. Campsite Development	Y	Y	Y	Y	N	N	N	N	N	N
. Campsite Rehabilitation	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA
. Commercial Facilities	N	N	N	N	N	N	N	N	N	N
. Interpretive Facilities	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
RESEARCH										
. Activities	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. Facilities	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

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[5]No motors between Saganaga Falls and Magnetic Lake, and South Lake and Moose Lake
[6]Permission of MNR
[7]Trappers only
[8]Non-Government maintenance
[9]Non-Government maintenance
[10]10 Persons/group/campsite
[11]Designated lakes only

10. INTERPRETATION

- The purpose of an interpretive programme is to enhance the park visitor's experience and to inform potential visitors of the park's resources and role in the provincial park system.

- Sites of geological, vegetative, historical, and faunal interest which are readily interpreted to park visitors are identified in Figure 14.

- It is proposed that interpretive information be distributed to park visitors and potential visitors at access points and M.N.R. offices in the form of brochures. Some sites may warrant on-site information boards of a discrete design in keeping with the intent of the waterway experience.

- The following interpretive themes are identified along the LaVerendrye waterway; the fur trade, prehistoric occupation, railroad and logging era, geology and landscape, vegetation, wildlife viewing and international relations.

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[1]LaVerendrye was recommended for provincial park status in the Thunder Bay District Land Use Guidelines (MNR) 1983, and subsequently approved by the Ontario Minister of Natural Resource in June 1983. The land use guidelines were part of a broader planning exercise that extended across the province and included extensive public consultation.

Figure 14

Sites of interpre

2 1 0 2 4 6 km

North

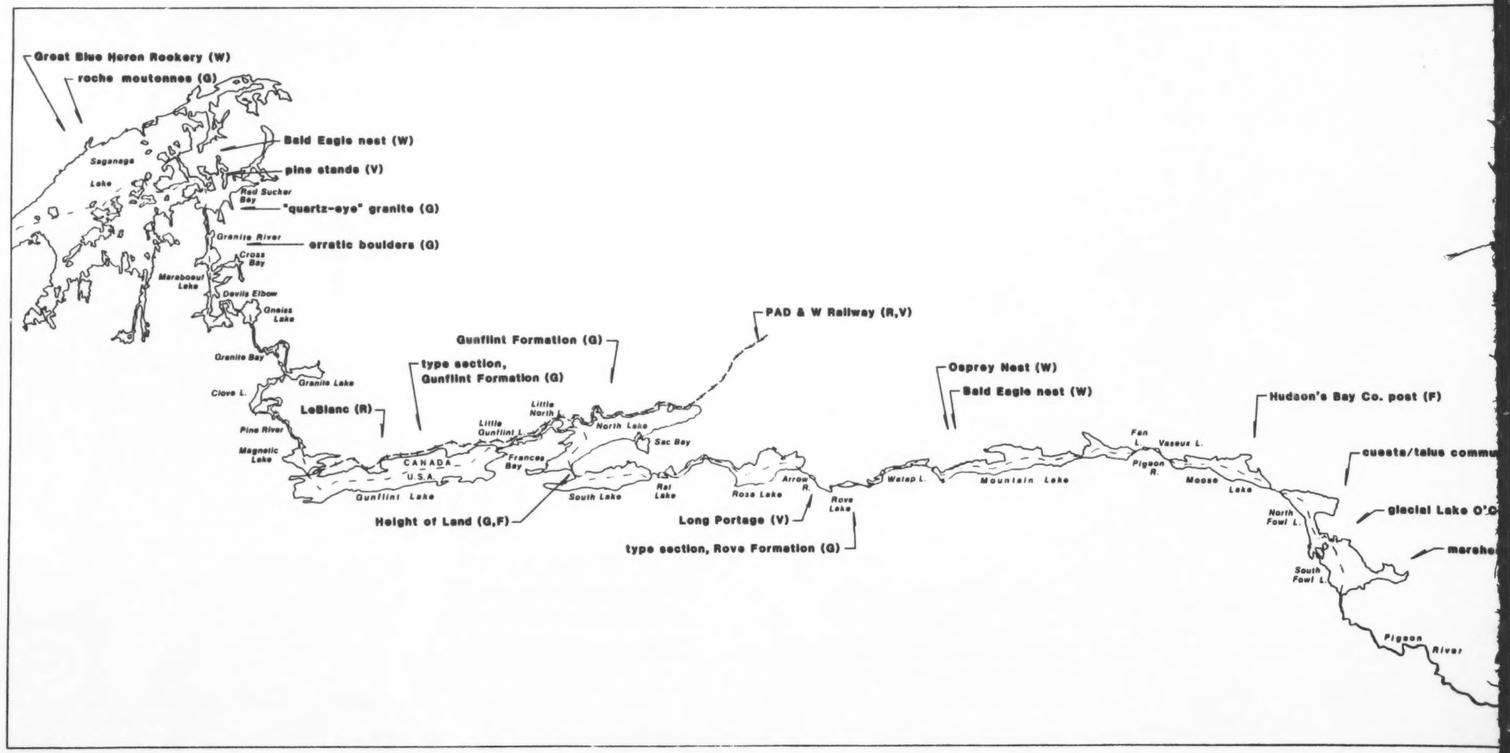

Figure 14

Sites of Interpretive Potential

- G Geology
- V Vegetation
- W Wildlife Viewing
- F The Fur Trade
- R Railway/Logging Era